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HAZARDOUS SUBSTANCES (DANGEROUS GOODS AND SCHEDULED TOXIC SUBSTANCES) TRANSFER NOTICE 2004

PURSUANT TO THE HAZARDOUS SUBSTANCES
AND NEW ORGANISMS ACT 1996

Hazardous Substances and New Organisms Act 1996**Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004**

Pursuant to section 160A of the Hazardous Substances and New Organisms Act 1996 (in this notice referred to as **the Act**), the Environmental Risk Management Authority gives the following notice.

1. Title

This notice is the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004.

2. Commencement

This notice comes into force on 1 April 2004.

3. Deemed assessment and approval

- (1) On the commencement of this notice, the substances described in Schedule 1 (dangerous goods), that were, immediately before that commencement, subject to Part XIV of the Act, cease to be subject to that Part.
- (2) On the commencement of this notice, the substances described in Schedule 2 (scheduled toxic substances), that were, immediately before that commencement, subject to Part XIII of the Act, cease to be subject to that Part.
- (3) The substances described in Schedule 1 (other than gases that are not hazardous substances) and Schedule 2 are deemed to have been assessed and approved by the Authority under section 29 of the Act.

4. Deemed hazard classification

- (1) The substances described in Schedule 1 (dangerous goods) are deemed to have the hazard classifications specified opposite their descriptions in Schedule 1.
- (2) The substances described in Schedule 2 (scheduled toxic substances) are deemed to have the hazard classifications specified opposite their descriptions in Schedule 2.

5. Application of controls and changes to controls

- (1) The controls that apply to the substances described in Tables 1 to 3 (hazardous gases) of Schedule 1 are as follows:

- (a) the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001, with the changes indicated in Schedule 3:
 - (b) the Hazardous Substances (Classes 6, 8 and 9 Controls) Regulations 2001, with the changes indicated in Schedule 3:
 - (c) the Hazardous Substances (Identification) Regulations 2001, with the changes indicated in Schedule 3:
 - (d) the Hazardous Substances (Packaging) Regulations 2001:
 - (e) the Hazardous Substances (Disposal) Regulations 2001:
 - (f) the Hazardous Substances (Emergency Management) Regulations 2001, with the changes indicated in Schedule 3:
 - (g) the Hazardous Substances (Tracking) Regulations 2001, with the changes indicated in Schedule 3:
 - (h) the Hazardous Substances (Compressed Gases) Regulations 2004:
 - (i) the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004.
- (2) The controls that apply to the substances described in Table 4 (gases that are not hazardous substances) of Schedule 1 are as follows:
- (a) the Hazardous Substances (Compressed Gases) Regulations 2004, with the changes indicated in Schedule 4:
 - (b) the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004.
- (3) The controls that apply to the substances described in Table 5 (classes 3, 4 and 5 dangerous goods) of Schedule 1 are as follows:
- (a) the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001:
 - (b) the Hazardous Substances (Classes 6, 8 and 9 Controls) Regulations 2001, with the changes indicated in Schedule 5:
 - (c) the Hazardous Substances (Identification) Regulations 2001:
 - (d) the Hazardous Substances (Packaging) Regulations 2001, with the changes indicated in Schedule 5:
 - (e) the Hazardous Substances (Disposal) Regulations 2001:
 - (f) the Hazardous Substances (Emergency Management) Regulations 2001, with the changes indicated in Schedule 5:

- (g) the Hazardous Substances (Tracking) Regulations 2001, with the changes indicated in Schedule 5:
 - (h) the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004.
- (4) The controls that apply to the substances described in Table 6 (petrol and petroleum products) of Schedule 1 are as follows:
- (a) the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001, with the changes indicated in Schedule 6:
 - (b) the Hazardous Substances (Classes 6, 8 and 9 Controls) Regulations 2001, with the changes indicated in Schedule 6:
 - (c) the Hazardous Substances (Identification) Regulations 2001, with the changes indicated in Schedule 6:
 - (d) the Hazardous Substances (Packaging) Regulations 2001, with the changes indicated in Schedule 6:
 - (e) the Hazardous Substances (Disposal) Regulations 2001, with the changes indicated in Schedule 6:
 - (f) the Hazardous Substances (Emergency Management) Regulations 2001, with the changes indicated in Schedule 6:
 - (g) the Hazardous Substances (Tracking) Regulations 2001, with the changes indicated in Schedule 6:
 - (h) the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004, with the changes indicated in Schedule 6.
- (5) The controls that apply to the substances described in Schedule 2 (scheduled toxic substances) are as follows:
- (a) the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001:
 - (b) the Hazardous Substances (Classes 6, 8 and 9 Controls) Regulations 2001, with the changes indicated in Schedule 7:
 - (c) the Hazardous Substances (Identification) Regulations 2001, with the changes indicated in Schedule 7:
 - (d) the Hazardous Substances (Packaging) Regulations 2001, with the changes indicated in Schedule 7:
 - (e) the Hazardous Substances (Disposal) Regulations 2001:
 - (f) the Hazardous Substances (Emergency Management) Regulations 2001, with the changes indicated in Schedule 7:

- (g) the Hazardous Substances (Tracking) Regulations 2001, with the changes indicated in Schedule 7:
- (h) the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004.

6. Other obligations and restrictions

The obligations and restrictions specified in Schedule 8 (Controls for stationary container systems), Schedule 9 (Controls relating to secondary containment), Schedule 10 (Controls relating to the adverse effects of unintended ignition of class 2 and class 3.1 hazardous substances), Schedule 11 (Transitional controls and variations to controls) and Schedule 12 (Changes to controls relating to transportation of packaged dangerous goods) are imposed as controls under section 160B of the Act applying to the substances described in Schedules 1 and 2.

7. Workplace exposure standards set for substances transferred

- (1) Under regulation 29(2) of the Hazardous Substance (Classes 6, 8, and 9 Controls) Regulations 2001, the Authority adopts as a workplace exposure standard in relation to each hazardous substance listed in Schedule 1 or Schedule 2, the value specified in the document described in subclause (2) relating to that hazardous substance, if any.
- (2) The document referred to in subclause (1) is the document entitled “Workplace Exposure Standards”, published by the Occupational Safety and Health Service, Department of Labour, January 2002, ISBN 0-477-03660-0.

8. Tolerable exposure limits and environmental exposure limits set for substances transferred

- (1) For the purpose of regulation 24(1) of the Hazardous Substances (Classes 6, 8 and 9 Controls) Regulations 2001, the Authority sets as tolerable exposure limits for petrol, aviation gasoline and racing gasoline the values specified in Schedule 13.
- (2) For the purpose of regulation 33 of the Hazardous Substances (Classes 6, 8 and 9 Controls) Regulation 2001, the Authority sets as environmental exposure limits for petrol, aviation gasoline and racing gasoline the values specified in Schedule 13.

Schedule 1

List of substances (dangerous goods) to be transferred

Table 1

Flammable gases (that are not otherwise hazardous)

Substance Description	CAS Number	UN Number	Hazard Classification
1-Butene (butylene)	25167-67-3	1012	2.1.1A
1-Propene, 2-methyl- (isobutene)	115-11-7	1055	2.1.1A
Butane	106-97-8	1011	2.1.1A
Cyclopropane	75-19-4	1027	2.1.1A
Deuterium	7782-39-0	1957	2.1.1A
Ethane	74-84-0	1035	2.1.1A
Ethane, 1-chloro-1,1difluoro-	75-68-3	2517	2.1.1A
Ethane, 1,1-difluoro- (Refrigerant gas R152A)	75-37-6	1030	2.1.1A
Ethane, 1,1,1-trifluoro- (Refrigerant gas R143A)	420-46-2	2035	2.1.1A
Ethene (ethylene)	74-85-1	1962	2.1.1A
Ethyne (acetylene)	74-86-2	1001	2.1.1A
Hydrogen	1333-74-0	1049	2.1.1A
LPG (liquefied petroleum gas)	68476-85-7	1075	2.1.1A
<p><u>Description:</u> A mixture of hydrocarbon gases liquefied by application of a few atmospheres pressure and/or refrigeration below their boiling points. The mixture consists of predominantly C₃ and C₄ hydrocarbons (propane and butanes) with small amounts of other hydrocarbons in the C₁ to C₇ range and additives, subject to the following limits:</p> <p>Ethane: Maximum 5%</p> <p>Propane: Maximum 100%</p> <p>Butanes: Maximum 100%</p> <p>Propylene: Maximum 5%</p> <p>Unsaturated hydrocarbons other than propylene: Maximum 0.3%</p> <p>Butadiene: Maximum 0.1%</p> <p>Additives: (<0.1% v/v)</p> <p>Anti-icing agents</p> <p>Odorants</p>			
Methane	74-82-8	1971	2.1.1A
Propane	74-98-6	1978	2.1.1A

Substance Description	CAS Number	UN Number	Hazard Classification
Methane, difluoro-	75-28-5	3252	2.1.1A
Methane, fluoro- (Refrigerant gas R41)	593-53-3	2454	2.1.1A
Propane, 2-methyl- (isobutane)	75-10-5	1969	2.1.1A
Propane, 2,2-dimethyl- (neopentane)	463-82-1	2044	2.1.1A
Propylene	115-07-1	1077	2.1.1A

Table 2**Oxidising gases that are not toxic**

Substance Description	CAS Number	UN Number	Hazard Classification
Carbon dioxide and oxygen mixture, compressed (>23% oxygen)	8063-77-2	3261	5.1.2A
Oxygen	7782-44-7	1072	5.1.2A

Table 3**Oxidising and/or toxic gases**

Substance Description	CAS Number	UN Number	Hazard Classification(s)
1,3-Butadiene	106-99-0	1010	2.1.1A, 6.4A, 6.6A, 6.7A, 6.8B, 6.9A, 9.1D
2-Propanone, 1,1,1,3,3,3-hexafluoro- (hexafluoro acetone)	684-16-2	2420	6.1B, 6.8A, 6.9A, 8.2A, 8.3A
Ammonia, anhydrous	7664-41-7	1005	2.1.1B, 6.1C, 8.1A, 8.2B, 8.3A, 9.1A
Ammonia, >50% aqueous solution	1336-21-6	3318	2.1.1B, 6.1D, 8.1A, 8.2B, 8.3A, 9.1A, 9.3B
Ammonia, 35-50% aqueous solution	1336-21-6	2073	6.1D, 8.1A, 8.2B, 8.3A, 9.1A, 9.3B
Borane, trichloro-	10294-34-5	1741	6.1C, 6.9A, 8.1A, 8.2A, 8.3A, 9.1D, 9.3C
Borane, trifluoro-	7637-07-2	1008	6.1A, 6.9A, 8.1A, 8.2A, 8.3A, 9.1D
Carbon monoxide	630-08-0	1016	2.1.1A, 6.1C, 6.8A, 6.9A, 9.1D
Carbon oxide sulphide (carbonyl sulphide)	463-58-1	2204	2.1.1A, 6.1C, 6.3A, 6.4A, 6.9A, 9.1D
Chlorine	7782-50-5	1017	5.1.2A, 6.1A, 8.2A, 8.3A, 6.9A, 9.1A, 9.2A, 8.1A
Dinitrogen tetroxide [nitrogen dioxide]	10544-72-6 [10102-44-0]	1067	5.1.2A, 6.1A, 6.9A, 8.1A, 8.2A, 8.3A, 9.1D
Dinitrogen tetroxide and nitric oxide mixture [nitrogen dioxide and nitric oxide mixture]	63907-41-5	1975	5.1.2A, 6.1A, 6.9A, 8.1A, 8.2A, 8.3A, 9.1D
Ethanamine, anhydrous (ethylamine)	75-04-7	1036	2.1.1A, 6.1C, 6.9A, 8.2A, 8.3A, 9.1D, 9.3B

Substance Description	CAS Number	UN Number	Hazard Classification(s)
Ethane, chloro- (chloroethane)	75-00-3	1037	2.1.1A, 6.4A, 6.5B, 6.7B, 6.8B, 9.1C, 9.2B,
Ethene, bromo- (vinyl bromide)	593-60-2	1085	2.1.1A, 6.1D, 6.4A, 6.6A, 6.7A, 6.9A, 9.3B
Ethene, chloro- (vinyl chloride)	74-01-4	1086	2.1.1A, 6.1D, 6.5B, 6.6A, 6.7A, 6.9A, 9.3B
Ethylene oxide and carbon dioxide mixture, >87% ethylene oxide		3300	2.1.1A, 6.1C, 6.3A, 6.4A, 6.5A, 6.5B, 6.6A, 6.7A, 6.8A, 6.9A, 9.1D, 9.2D
Hydrogen sulphide	7783-06-4	1053	2.1.1A, 6.1B, 6.3B, 6.4A, 6.9A, 9.1A
Methanamine (methylamine)	74-89-5	1061	2.1.1A, 6.1C, 6.8B, 6.9B, 8.2B, 8.3A, 9.2D, 9.3B
Methanamine, N-methyl-, anhydrous (dimethylamine)	124-40-3	1032	2.1.1A, 6.1C, 6.3A, 6.4A, 6.5B, 6.9A, 9.1D
Methane, chloro- (methyl chloride)	74-87-3	1063	2.1.1A, 6.1D, 6.6B, 6.8B, 6.9A, 9.3C
Methane, oxybis (dimethyl ether)	115-10-6	1033	2.1.1A, 6.4A
Methanethiol (methyl mercaptan)	74-93-1	1064	2.1.1A, 6.1C, 6.9A, 8.2C, 8.3A, 9.1A
Nitrous oxide	10024-97-2	1070	5.1.2A, 6.8B, 6.9B
Nitric oxide	10102-43-9	1660	5.1.2A, 6.1B, 6.9A, 8.1A, 8.2A, 8.3A
Nitrosyl chloride	2696-92-6	1069	6.1A, 8.1A, 8.2B, 8.3A, 9.3A
Oxirane (ethylene oxide)	75-21-8	1040	2.1.1A, 6.1C, 6.3A, 6.4A, 6.5A, 6.5B, 6.6A, 6.7A, 6.8A, 6.9A, 9.1D, 9.2D
Phosgene	75-44-5	1076	6.1A, 6.9A, 8.1A, 8.2B, 8.3A
Silane	7803-62-5	2203	2.1.1A, 6.1D, 6.3B, 6.4A, 6.9B, 9.3C
Silane, tetrafluoro-	7783-61-1	1859	6.1C, 8.1A, 8.2B, 8.3A, 9.4A
Sulphur dioxide	7446-09-5	1079	6.1C, 6.3B, 6.4A, 6.5A, 6.8B, 6.9A, 8.1A, 9.1A
Sulphuryl fluoride	2699-79-8	2191	6.1C, 6.3B, 6.4A, 6.8B, 6.9A, 9.3B
Sulphur hexafluoride	2551-62-4	1080	6.4A
Trimethylamine, anhydrous	75-50-3	1083	2.1.1A, 6.1C, 6.3A, 8.3A, 9.1D, 9.3B

Table 4**Gases that are not hazardous substances (but are controlled by the Hazardous Substances (Compressed Gases) Regulations 2004)**

Substance Description	CAS Number	UN Number	Hazard Classification
1,1,1,2-Tetrafluoroethane (Refrigerant gas R134A)	811-97-2	3159	Not hazardous
Argon	7440-37-1	1006	Not hazardous
Carbon dioxide	124-38-9	1013	Not hazardous
Chloropentafluoroethane (Refrigerant gas R115)	76-15-3	1020	Not hazardous
Compressed air		1002	Not hazardous
Ethane, 1,2-dichloro-1,1,2,2-tetrafluoro- (Refrigerant gas R114)	76-14-2	1958	Not hazardous
Ethane, 2-chloro-1,1,1,2-tetrafluoro- (Refrigerant gas 124)	2837-89-0	1021	Not hazardous
Ethane, hexafluoro- (Refrigerant gas R116)	76-16-4	2193	Not hazardous
Helium	7440-59-7	1046	Not hazardous
Methane, chlorodifluoro- (Refrigerant gas R22)	75-45-6	1018	Not hazardous
Methane, chlorotrifluoro- (Refrigerant gas R13)	75-72-9	1022	Not hazardous
Methane, tetrafluoro- (Refrigerant gas R14)	75-73-0	1982	Not hazardous
Methane, trifluoro- (Refrigerant gas R23)	75-46-7	1984	Not hazardous
Neon	7440-01-9	1065	Not hazardous
Nitrogen gas	7727-37-9	1066	Not hazardous
Propane, heptafluoro, 1H-	2252-84-8	3296	Not hazardous
Propane, heptafluoro, 2H-	431-89-0	3296	Not hazardous
Propane, octafluoro-	76-19-7	2424	Not hazardous
Refrigerant gas R409A		3163	Not hazardous
Refrigerant gas R503		2599	Not hazardous
Refrigerant gas R404A		3337	Not hazardous
Refrigerant gas R407C		3340	Not hazardous
Refrigerant gas R500	420-46-2	2602	Not hazardous
Refrigerant gas R502 (mixture of chlorodifluoromethane and chloropentafluoroethane)		1973	Not hazardous
Xenon	7440-63-3	2036	Not hazardous

Table 5
Classes 3, 4 and 5 dangerous goods

Substance	CAS Number	UN Number	Hazard Classification(s)
1,2-Ethanediamine, N,N,N',N'-tetramethyl-	110-18-9	2372	3.1B, 6.1C, 8.2B, 8.3A, 9.1C, 9.3B
1,2-Ethanediol, diacetate	111-55-7	3272	3.1D, 6.1E, 6.3B, 6.4A, 9.1D
1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane	100-97-0	1328	4.1.1B, 6.1D, 6.3B, 6.4A, 6.5A, 6.5B, 6.8B, 9.3C
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-	87-90-1	2468	5.1.1B, 6.1D, 6.3A, 8.3A, 9.1A, 9.2D, 9.3B
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt	2893-78-9	2465	5.1.1B, 6.1D, 6.3A, 6.4A, 9.1A, 9.2A, 9.3C
1,3,5-Trioxane, 2,4,6-trimethyl-	123-63-7	1264	3.1C, 6.1D, 6.3B, 6.4A, 9.3C
1,3-Butadiene, 2-chloro-	126-99-8	1991	3.1B, 6.1C, 6.3A, 6.4A, 6.7B, 6.8B, 6.9A, 9.1D, 9.3B
1,3-Butadiene, 2-methyl-	78-79-5	1218	3.1A, 6.1E, 6.3B, 6.4A, 6.6B, 6.7B, 6.8B, 6.9B, 9.1C
1,3-Dioxolane	646-06-0	1166	3.1B, 6.1D, 6.3B, 6.4A, 6.6B, 6.9B
1,4-Dioxane	123-91-1	1165	3.1B, 6.1D, 6.3B, 6.4A, 6.7A, 6.9B, 9.3C
1,5-Cyclooctadiene	111-78-4	2520	3.1C, 6.1E, 6.3A, 6.4A, 6.5B, 9.1A
1,6-Octadiene, 7-methyl-3-methylene-	123-35-3	2319	3.1C, 6.3A, 6.4A, 6.8B, 9.1A
1-Butanamine	109-73-9	1125	3.1B, 6.1B, 8.1A, 8.2A, 8.3A, 9.1D, 9.3B
1-Butanol	71-36-3	1120	3.1C, 6.1D, 6.3A, 8.3A, 9.3C
1-Butanol, 3-methoxy-, acetate	4435-53-4	2708	3.1D, 6.1E, 9.1D
1-Butanol, 3-methoxy-3-methyl-	56539-66-3		3.1D
1-Butanol, 3-methyl-	123-51-3	1105	3.1C, 6.1D, 6.3B, 8.3A, 9.3C
1-Butanol, 3-methyl-, acetate	123-92-2	1104	3.1C, 6.3B, 6.4A, 9.1D
1-Decanol	112-30-1		3.1D, 6.1C, 6.3A, 6.4A, 9.1B
1-Heptanol	111-70-6		3.1D, 6.4A, 9.1D
1-Heptene	592-76-7	2278	3.1B
1-Hexanamine, 2-ethyl-	104-75-6	2276	3.1C, 6.1B, 8.2C, 8.3A, 9.1B, 9.3B
1-Hexanol	111-27-3	2282	3.1C, 6.1D, 6.3B, 6.4A, 9.1D, 9.3C
1-Hexanol, 2-ethyl-	104-76-7		3.1D, 6.1D, 6.3A, 6.4A, 9.1D, 9.3C
1-Hexanol, 2-ethyl-, titanium (4+) salt	1070-10-6		3.1D, 9.1B
1-Hexene	592-41-6	2370	3.1B, 6.3B, 9.1B
1H-Pyrrole	109-97-7	1993	3.1C, 6.1D, 6.3B, 6.4A, 6.9B
1-Nonanol	143-08-8	1987	3.1D, 6.1C, 6.3A, 6.4A, 9.1A
1-Octanol	111-87-5		3.1D, 6.1D, 6.3A, 6.4A, 9.1D, 9.3C
1-Pentanamine, N-pentyl-	2050-92-2	2841	3.1C, 6.1B, 8.2C, 8.3A, 9.1A, 9.3B
1-Pentanol	71-41-0	1105	3.1C, 6.1C, 6.3A, 6.4A, 9.1D, 9.2B, 9.3B
1-Propanamine	107-10-8	1277	3.1B, 6.1C, 6.3A, 8.3A, 9.3C
1-Propanamine, 2-methyl-N-(2-methylpropyl)-	110-96-3	2361	3.1C, 6.1C, 8.2C, 8.3A, 9.1D, 9.3B

Substance	CAS Number	UN Number	Hazard Classification(s)
1-Propanamine, N-propyl-	142-84-7	2383	3.1B, 6.1C, 8.1A, 8.2A, 8.3A, 9.1D, 9.3B
1-Propanethiol	107-03-9	2402	3.1B, 6.1B, 6.3A, 6.4A, 9.1A, 9.3C
1-Propanol	71-23-8	1274	3.1B, 6.1D, 6.4A, 9.3C
1-Propanol, 2-methyl-	78-83-1	1212	3.1C, 6.1E, 6.3B, 6.4A
1-Propene, 1,3-dichloro-	542-75-6	2047	3.1B, 6.1C, 6.3A, 6.4A, 6.5B, 6.6B, 6.7B, 6.9B, 9.1A, 9.2D, 9.3B
2,3-Butanedione	431-03-8	2346	3.1B, 6.1D, 6.3A, 6.4A, 9.1D, 9.3C
2,4-Heptanedione, 6-methyl-	3002-23-1	1993	3.1C, 9.1C
2,4-Pentanedione	123-54-6	2310	3.1C, 6.1C, 6.3B, 6.4A, 6.9B, 9.1D, 9.3B
2,4-Pentanedione, peroxide, 35% in dipropylene glycol	37187-22-7	3105	5.2D, 6.3B, 8.3A
2-Butanol	78-92-2	1120	3.1C, 6.1E, 6.4A
2-Butanone	78-93-3	1193	3.1B, 6.1E, 6.3B, 6.4A, 6.9B
2-Butanone, 3-hydroxy-	513-86-0	2621	3.1C, 6.3A, 6.4A
2-Butanone, oxime	96-29-7	1993	3.1C, 6.1D, 6.3B, 6.4A, 6.5B, 6.7B, 6.9B, 9.1C, 9.2A, 9.3B
2-Butanone, peroxide, 33-40% in dimethyl phthalate + 1-10% methyl ethyl ketone,	1338-23-4	3107	3.1D, 5.2E, 6.1D, 8.2B, 8.3A, 9.1B, 9.3C
2-Butene, 2-methyl-	513-35-9	2460	3.1B, 6.1D, 6.3B, 9.1C, 9.3C
2-Cyclohexen-1-one, 3,5,5-trimethyl-	78-59-1		3.1D, 6.1D, 6.3B, 6.4A, 6.9B, 9.1C, 9.2A, 9.3C
2-Furanmethanol, tetrahydro-	97-99-4	1987	3.1D, 6.1D, 6.3B, 6.4A, 6.8B, 9.3C
2-Heptanone	110-43-0	1110	3.1C, 6.1D, 6.3B, 6.4A, 9.3C
2-Hexanol	626-93-7	2282	3.1C, 6.3B, 6.9B, 9.1D
2-Hexanone	591-78-6	1224	3.1C, 6.1E, 6.3B, 6.4A, 6.8B, 6.9A
2-Hexanone, 5-methyl-	110-12-3	2302	3.1C, 6.1D, 6.3B, 6.4A
2H-Pyran, 3,4-dihydro-	110-87-2	2376	3.1B, 6.1D, 6.3A, 9.1C
2H-Pyran-2-carboxaldehyde, 3,4-dihydro-	100-73-2	2607	3.1C, 6.1E, 6.3A, 6.4A, 6.6B, 9.1C
2-Octanol	123-96-6	1987	3.1D, 6.3B, 6.4A, 6.9B, 9.1C
2-Pentanol	6032-29-7	1105	3.1C, 6.1D, 6.3A, 6.4A, 9.1D
2-Pentanol, 2-methyl-	590-36-3	2560	3.1C, 9.1D
2-Pentanol, 4-methyl-	108-11-2	2053	3.1C, 6.1C, 6.3B, 6.4A, 6.9B, 9.1D, 9.3C
2-Pentanol, acetate	626-38-0	1104	3.1C, 6.3B, 6.4A, 9.1D
2-Pentanone	107-87-9	1249	3.1B, 6.1D, 6.3B, 6.4A, 9.2D, 9.3C
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	1148	3.1C, 6.1E, 6.3B, 6.4A,
2-Pentanone, 4-methyl-	108-10-1	1245	3.1B, 6.1D, 6.3B, 6.4A, 9.2B, 9.3B
2-Propanamine	75-31-0	1221	3.1A, 6.1C, 6.9B, 8.1A, 8.2C, 8.3A, 9.1D, 9.2B, 9.3B
2-Propanamine, N-(1-methylethyl)-	108-18-9	1158	3.1B, 6.1D, 6.9A, 8.1A, 8.2B, 8.3A, 9.1B, 9.3B
2-Propanethiol	75-33-2	2402	3.1B, 6.1D, 6.3A, 6.4A, 9.1A, 9.3C
2-Propanethiol, 2-methyl-	75-66-1	2347	3.1B, 6.1C, 6.9B, 9.1A

Substance	CAS Number	UN Number	Hazard Classification(s)
2-Propanol	67-63-0	1219	3.1B, 6.1E, 6.3B, 6.4A
2-Propanol, 1-(1,1-dimethylethoxy)-	57018-52-7	1993	3.1C, 6.1E, 8.3A
2-Propanol, 1-butoxy-	5131-66-8	1993	3.1C, 6.1D, 6.3A, 6.4A, 9.3C
2-Propanol, 1-ethoxy-	1569-02-4		3.1C, 6.1E, 6.3B, 6.4A
2-Propanol, 1-methoxy-	107-98-2	3092	3.1C, 6.1E, 6.3B, 6.4A
2-Propanol, 1-methoxy-, acetate	108-65-6	3272	3.1C, 6.4A
2-Propanol, 1-propoxy-	1569-01-3		3.1C, 6.1E, 6.3B, 6.4A
2-Propanol, 2-methyl-	75-65-0	1120	3.1B, 6.1E, 6.3B, 6.4A
2-Propanol, 2-methyl-, aluminium salt	556-91-2	1325	4.1.2B, 9.1C
2-Propanone	67-64-1	1090	3.1B, 6.1E, 6.3B, 6.4A
2-Propenenitrile	107-13-1	1093	3.1B, 6.1B, 6.3A, 6.4A, 6.5B, 6.7A, 6.8B, 6.9A, 9.1B, 9.2A, 9.3A
2-Propenoic acid, 2-ethylhexyl ester	103-11-7		3.1D, 6.1E, 6.3A, 6.5B, 6.7B, 6.9A, 9.1C
2-Propenoic acid, 2-methyl-, 2-(diethylamino) ethyl ester	105-16-8	1993	3.1D, 6.1D, 6.3A, 6.4A, 9.1D
2-Propenoic acid, 2-methyl-, 2,2,2-trifluoroethyl ester	352-87-4		3.1C, 6.3B, 6.4A, 9.1C
2-Propenoic acid, 2-methyl-, 2-ethoxyethyl ester	2370-63-0		3.1D, 9.1D
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	97-86-9	2283	3.1C, 6.3B, 6.4A, 9.1A
2-Propenoic acid, 2-methyl-, 2-propenyl ester	96-05-9	1992	3.1C, 6.1B, 6.3B, 6.4A, 9.1A, 9.3B
2-Propenoic acid, 2-methyl-, butyl ester	97-88-1	2227	3.1C, 6.3A, 6.4A, 6.5B, 6.9B, 9.1C
2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2	2277	3.1B, 6.3B, 6.5B, 9.1D
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	1247	3.1B, 6.1D, 6.3B, 6.4A, 6.5B, 6.9B, 9.1D
2-Propenoic acid, 2-methylpropyl ester	106-63-8	2527	3.1C, 6.1C, 6.3A, 6.4A, 6.5B, 9.1D
2-Propenoic acid, butyl ester	141-32-2	2348	3.1C, 6.1C, 6.3A, 6.4A, 6.5B, 6.8B, 6.9B, 9.1D, 9.3C
2-Propenoic acid, ethyl ester	140-88-5	1917	3.1B, 6.1C, 6.5B, 6.9B, 9.1D, 9.2B, 9.3B
2-Propenoic acid, methyl ester	96-33-3	1919	3.1B, 6.1C, 6.3A, 6.4A, 6.5B, 6.9B, 9.1D, 9.2B, 9.3B
2-Pyrrolidinone, 1-methyl-	872-50-4		3.1D, 6.1E, 6.3A, 6.4A, 6.8A,
3-Butyn-2-ol, 2-methyl-	115-19-5	1987	3.1B, 6.1D, 6.3B, 6.4A, 9.3B
3-Hexanol	623-37-0	2282	3.1C, 9.1D
3-Octanone	106-68-3	2271	3.1C, 6.1E, 6.3B, 9.1D
3-Pentanone	96-22-0	1156	3.1B, 6.1E, 6.3B, 6.4A, 9.2D
3-Penten-2-one, 4-methyl-	141-79-7	1229	3.1C, 6.1C, 6.3B, 6.9B, 8.3A, 9.2B, 9.3C
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	77-73-6	2048	3.1C, 6.1C, 6.3A, 6.4A, 6.9B, 9.1B, 9.3B
4-Heptanone, 2,6-dimethyl-	108-83-8	1157	3.1C, 6.1D, 6.3B, 6.4A, 9.2D, 9.3C
Acetaldehyde	75-07-0	1089	3.1A, 6.1D, 6.4A, 6.6A, 6.7B, 6.8B, 6.9B, 9.1D, 9.2D, 9.3C

Substance	CAS Number	UN Number	Hazard Classification(s)
Acetic acid, >80% aqueous solution	64-19-7	2789	3.1C, 6.1D, 6.9B, 8.1A, 8.2B, 8.3A, 9.1D, 9.3C
Acetic acid, 1,1-dimethylethyl ester	540-88-5	1123	3.1B, 6.3B, 6.4A
Acetic acid, 1-methylethyl ester	108-21-4	1220	3.1B, 6.1E, 6.3B, 6.4A
Acetic acid, 1-methylpropyl ester	105-46-4	1123	3.1B, 6.3B, 6.4A, 9.1D
Acetic acid, 2-methylpropyl ester	110-19-0	1213	3.1B, 6.1E, 6.3B, 6.4A
Acetic acid, 2-propenyl ester	591-87-7	2333	3.1B, 6.1B, 6.3A, 6.4A, 6.9B, 9.1D, 9.3B
Acetic acid, butyl ester	123-86-4	1123	3.1B, 6.1D, 6.3B, 6.4A, 9.1D
Acetic acid, chloro-, ethyl ester	105-39-5	1181	3.1C, 6.1B, 6.3A, 6.5B, 8.3A, 9.1A, 9.3A
Acetic acid, ethenyl ester	108-05-4	1301	3.1B, 6.1C, 6.3A, 6.4A, 6.6A, 6.7B, 6.8B, 6.9B, 9.1D, 9.3C
Acetic acid, ethyl ester	141-78-6	1173	3.1B, 6.1E, 6.4A, 6.9B
Acetic acid, methyl ester	79-20-9	1231	3.1B, 6.1E, 6.3A, 6.4A
Acetic acid, pentyl ester	628-63-7	1104	3.1C, 6.3B, 6.4A, 9.1D
Acetic acid, propyl ester	109-60-4	1276	3.1B, 6.3B, 6.4A, 9.1D
Acetonitrile	75-05-8	1648	3.1B, 6.1B, 6.4A, 9.2D, 9.3A
Acetyl chloride	75-36-5	1717	3.1B, 6.1D, 8.1A, 8.2B, 8.3A, 9.1D, 9.3C
Aluminate (1-), tetrahydro-, lithium, (T-4)-	16853-85-3	1410	4.3A, 6.1A, 8.2A, 8.3A, 9.1C
Aluminate (1-), tetrahydro-, lithium, (T-4)-, ethereal	16853-85-3	1411	3.1A, 4.3A, 6.1B, 6.9A, 8.2A, 8.3A, 9.1D, 9.3C
Aluminium phosphide	20859-73-8	1397	4.3A, 6.1A, 6.9B, 9.1A, 9.3A
Aluminium powder, coated PG II	7429-90-5	1309	4.1.1A, 6.9B, 9.1D, 9.3C
Aluminium powder, coated PG III	7429-90-5	1309	4.1.1B, 6.9B, 9.1D, 9.3C
Aluminium powder, uncoated PG II	7429-90-5	1396	4.3B, 6.9B, 9.1D, 9.3C
Aluminium powder, uncoated PG III	7429-90-5	1396	4.3C, 6.9B, 9.1D, 9.3C
Aluminium pyrophoric	7429-90-5	1383	4.2A, 6.9B, 9.1D, 9.3C
Aluminium, hydrobis(2-methylpropyl)-	1191-15-7	3076	4.2A, 4.3A, 8.2A, 8.3A, 9.1D
Amyl nitrate	1002-16-0	1112	3.1C, 6.1D, 9.1B
Barium	7440-39-3	1400	4.3B, 6.1C, 6.3B, 6.4A, 6.9A, 9.1C, 9.3B
Barium peroxide	1304-29-6	1449	5.1.1B, 6.1B, 6.3B, 6.4A, 6.9B, 9.3B
Benzaldehyde	100-52-7	1990	3.1C, 6.1D, 6.3B, 6.5B, 9.1D, 9.2D, 9.3C
Benzenamine	62-53-3	1547	3.1D, 6.1C, 6.3A, 6.5B, 6.6A, 6.7B, 6.9A, 8.3A, 9.1A, 9.3B
Benzene	71-43-2	1114	3.1B, 6.1B, 6.3A, 6.4A, 6.6A, 6.7A, 6.8A, 6.9A, 9.1D, 9.3C
Benzene, (1-methylethenyl)-	98-83-9	2303	3.1C, 6.1E, 6.3B, 6.4A, 9.1B, 9.2C
Benzene, (1-methylethyl)-	98-82-8	1918	3.1C, 6.1D, 6.3B, 6.4A, 6.9B, 9.1B, 9.3C
Benzene, 1,2,4-trimethyl-	95-63-6	1992	3.1C, 6.1D, 6.3B, 6.4A, 6.9B, 9.1B
Benzene, 1,2-dimethyl-	95-47-6	1307	3.1B, 6.1D, 6.3B, 6.4A, 9.1D, 9.3C
Benzene, 1,3,5-trimethyl-	108-67-8	2325	3.1C, 6.3B, 6.4A, 9.1B

Substance	CAS Number	UN Number	Hazard Classification(s)
Benzene, 1,3-dimethyl-	108-38-3	1307	3.1B, 6.1D, 6.3A, 6.4A, 6.8B, 6.9B, 9.1D, 9.3C
Benzene, 1,4-dimethyl-	106-42-3	1307	3.1C, 6.1E, 6.3A, 6.4A, 6.8B, 9.1D
Benzene, 1-chloro-4-methyl-	106-43-4	2238	3.1C, 6.1D, 6.5B, 9.1B, 9.3C
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	2046	3.1C, 6.1D, 9.1B
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	2046	3.1C, 6.1D, 9.1B
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	2046	3.1C, 6.1E, 6.3A, 6.4A, 9.1B
Benzene, butyl-	104-51-8	2709	3.1D, 9.1A
Benzene, chloro-	108-90-7	1134	3.1C, 6.1D, 6.3B, 6.4A, 6.9A, 9.1A, 9.3C
Benzene, diethyl-	25340-17-4	2049	3.1C, 6.1E, 6.3B, 6.4A, 9.1A
Benzene, dimethyl-, mixed isomers	1330-20-7		3.1C, 6.1D, 6.3A, 6.4A, 6.8B, 6.9B, 9.1D, 9.3C
Benzene, ethenyl-	100-42-5	2055	3.1C, 6.1C, 6.3A, 6.4A, 6.6B, 6.7B, 6.8B, 6.9A, 9.1A, 9.3B
Benzene, ethenylmethyl-	25013-15-4	2618	3.1C, 6.1C, 6.3B, 6.4A, 6.6B, 6.8B, 6.9B, 9.1D
Benzene, ethyl-	100-41-4	1175	3.1B, 6.1D, 6.3B, 6.4A, 6.7B, 6.8B, 6.9B, 9.1D, 9.2D
Benzene, methoxy-	100-66-3	2222	3.1C, 6.1C, 6.3B, 6.4A, 9.1D, 9.2D
Benzene, methyl-	108-88-3	1294	3.1B, 6.1D, 6.3A, 6.4A, 6.8B, 6.9B, 9.1D, 9.3C
Benzenecarboperoxoic acid, 1,1-dimethylethyl ester	614-45-9	3103	5.2C, 6.1E, 6.3B, 6.4A, 9.1A, 9.3C
Benzenemethanol	100-51-6		6.1D, 6.4A, 6.5B, 9.1D, 9.2B, 9.3C
Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimethyl-, (1R,2S,4R)-rel-	507-70-0	1312	4.1.1B, 6.1D, 6.3B, 6.4A, 6.5B, 9.1D, 9.3B
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-	76-22-2	2717	4.1.1C, 6.1D, 6.3B, 6.4A, 6.5B, 6.9B, 9.1B, 9.3C
Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-methylene-	79-92-5	1325	4.1.1B, 8.3A, 9.1A
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-	80-56-8	2368	3.1C, 6.1E, 6.3A, 6.4A, 9.1A
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-	127-91-3	2319	3.1C, 6.1E, 6.3A, 6.4A, 6.5B, 9.1A
Bismuth hydroxide nitrate oxide	1304-85-4	1477	5.1.1B
Borane, triethyl-	97-94-9	2845	4.2A, 6.1C, 8.2B, 8.3A, 9.3B
Borate (1-), tetrahydro-, potassium	13762-51-1	1870	4.3A, 6.1C, 8.2C, 8.3A, 9.3B
Borate (1-), tetrahydro-, sodium	16940-66-2	1426	4.3A, 6.1C, 8.2C, 8.3A, 9.3B
Boric acid, trimethyl ester	121-43-7	2416	3.1B, 6.1D, 6.3B, 6.4A, 6.8B, 9.3C
Boron, trifluoro[oxybis[methane]]-, (T-4)-	353-42-4	2965	4.3A, 6.1A, 6.9A, 8.2A, 8.3A, 9.1C, 9.3B
Bromic acid, potassium salt	7758-01-2	1484	5.1.1B, 6.1C, 6.3A, 6.4A, 6.6B, 6.7B, 6.8B, 6.9B, 9.3B
Bromic acid, sodium salt	7789-38-0	1494	5.1.1B, 6.1C, 6.3A, 6.4A, 6.6B, 6.7B, 6.8B, 9.3B
Butanal	123-72-8	1129	3.1B, 6.1E, 6.3B, 6.4A, 6.9B, 9.1D, 9.2A

Substance	CAS Number	UN Number	Hazard Classification(s)
Butane, 1-(ethenyloxy)-	111-34-2	2352	3.1B, 6.3B, 6.4A, 6.5B, 9.1C
Butane, 1,1'-oxybis-	142-96-1	1149	3.1C, 6.1E, 6.3A, 6.4A, 9.1C
Butane, 1-bromo-	109-65-9	1126	3.1B, 6.1E, 9.1C
Butane, 1-chloro-	109-69-3	1127	3.1B, 6.1E, 6.3B, 6.4A
Butane, 1-ethoxy-	628-81-9	1179	3.1B, 6.1D, 9.1D, 9.3C
Butane, 2-bromo-	78-76-2	2339	3.1B, 6.6B, 9.1D
Butane, 2-chloro-	78-86-4	1127	3.1B, 9.1B
Butane, 2-methyl-	78-78-4	1265	3.1A, 6.1E, 6.3B, 6.4A, 9.1D
Butanoic acid, ethyl ester	105-54-4	1180	3.1C, 6.3B, 6.4A, 9.1C
Butanoic acid, pentyl ester	540-18-1	2620	3.1C, 9.1A
Butanol 40-60% + butyl acetate 40-60%			3.1B, 6.1D, 6.3A, 6.4A, 6.5B, 6.9B, 9.1D, 9.3C
Butanol 5-60% + butyl acetate 5-60% + xylene 15-80%			3.1B, 6.1D, 6.3A, 6.4A, 6.5B, 6.8B, 6.9A, 9.1D, 9.3C
Butyl methyl ether	628-28-4	2350	3.1B
Calcium	7440-70-2	1401	4.3B, 6.1E, 6.3A, 6.4A
Calcium carbide	75-20-7	1402	4.3A, 6.3A, 8.3A
Calcium cyanamide, with >0.1 % calcium carbide	156-62-7	1403	4.3C, 6.1D, 6.3A, 6.5B, 6.9B, 8.3A, 9.1D, 9.2D, 9.3B
Calcium hydride	7789-78-8	1404	4.3A, 6.1E, 8.2A, 8.3A, 9.1D
Calcium manganese oxide silicate	12205-44-6	2844	4.3C, 9.3C
Calcium peroxide	1305-79-9	1457	5.1.1B, 6.3B, 6.4A
Carbon	7440-44-0	1362	4.2C
Carbon disulfide	75-15-0	1131	3.1B, 6.1C, 6.3A, 6.4A, 6.6B, 6.8A, 6.9A, 9.1D, 9.3C
Carbonic acid disodium salt, compd. with hydrogen peroxide (2:3)	15630-89-4	1479	5.1.1B, 6.1D, 6.4A, 9.1D, 9.3C
Carbonic acid, diethyl ester	105-58-8	2366	3.1C, 9.1D
Carbonic acid, dimethyl ester	616-38-6	1161	3.1B, 9.1D
Cellulose, nitrate with >25% water by mass	9004-70-0	2555	4.1.3B
Cellulose, nitrate, > 25% ethanol, (<12.6% nitrogen by dry mass)	9004-70-0	2556	4.1.3B, 6.4A, 9.1D
Cellulose, nitrate, > 25% isopropanol, (<12.6% nitrogen by dry mass)	9004-70-0	2556	4.1.3B, 6.1E, 6.3B, 6.4A
Chloric acid, potassium salt	3811-04-9	1485	5.1.1B, 6.1D, 6.3B, 6.4A, 6.9B, 9.1C, 9.2D, 9.3C
Chloric acid, sodium salt	7775-09-9	1495	5.1.1B, 6.1D, 6.3B, 6.4A, 6.5B, 6.9B, 9.1B, 9.2C, 9.3C
Chlorous acid, sodium salt	7758-19-2	1496	5.1.1B, 6.1B, 6.3A, 6.4A, 6.8A, 6.9B, 9.1A, 9.2A, 9.3B
Chromic acid, diammonium salt	7789-09-5	1439	5.1.1B, 6.1B, 6.5A, 6.5B, 6.6A, 6.7A, 6.8A, 6.9A, 8.2C, 8.3A, 9.1A, 9.2B, 9.3B
Chromic acid, dipotassium salt	7778-50-9	3288	6.1B, 6.5A, 6.5B, 6.6A, 6.7A, 6.8A, 6.9A, 8.2C, 8.3A, 9.1A, 9.2B, 9.3A

Substance	CAS Number	UN Number	Hazard Classification(s)
Chromic acid, disodium salt	10588-01-9	1479	5.1.1B, 6.1A, 6.5A, 6.5B, 6.6B, 6.7A, 6.8A, 8.2C, 8.3A, 9.1A, 9.2B, 9.3B
Chromic acid, disodium salt, dihydrate	7789-12-0	3288	6.1A, 6.5A, 6.5B, 6.6A, 6.7A, 6.8A, 6.9A, 8.2C, 8.3A, 9.1A, 9.3A
Chromium oxide	1333-82-0	1463	5.1.1B, 6.1B, 6.5A, 6.5B, 6.6A, 6.7A, 6.8A, 6.9A, 8.1A, 8.2B, 8.3A, 9.1A, 9.3B
cis, cis 1,3-Cyclooctadiene	3806-59-5	2520	3.1C, 6.1D, 6.3A, 6.4A, 6.5B, 9.1A
Cyclohexane	110-82-7	1145	3.1B, 6.1D, 6.3B, 9.1B, 9.3C
Cyclohexane, methyl-	108-87-2	2296	3.1B, 6.1E, 6.3B, 6.4A, 9.1D
Cyclohexanol	108-93-0		3.1D, 6.1D, 6.3B, 6.4A, 6.8A, 9.1D
Cyclohexanol, methyl-	25639-42-3	2617	3.1C, 6.1D, 6.4A, 6.9B, 9.1C, 9.3C
Cyclohexanone	108-94-1	1915	3.1C, 6.1C, 6.4A, 9.2B, 9.3C
Cyclohexanone peroxide, 30-60% in dibutyl phthalate 30-60%, ethyl acetate 10-30%	12262-58-7	3105	5.2D, 6.1D, 6.5B, 6.8A, 6.9B, 8.2B, 8.3A, 9.1A, 9.3C
Cyclohexanone, 2-methyl-	583-60-8	2297	3.1C, 6.1D, 6.3B, 6.4A, 6.9B, 9.3C
Cyclohexene	110-83-8	2256	3.1B, 6.1D, 6.3B, 9.1B, 9.3C
Cyclohexene, 1-methyl-4-(1-methylethenyl)-	138-86-3	2052	3.1C, 6.3B, 6.4A, 9.1A
Cyclohexene, 1-methyl-4-(1-methylethylidene)-	586-62-9	2541	3.1C, 6.1E, 9.1A
Cyclopentane	287-92-3	1146	3.1B, 6.1E, 6.3B, 6.4A, 9.1C
Cyclopentanol	96-41-3	2244	3.1C, 6.1C, 6.4A, 6.9B, 9.3C
Decane	124-18-5	2247	3.1C, 9.1A
Diazenedicarboxamide	123-77-3	3242	4.1.3B, 6.5A, 9.1D
Dibutylamine, pyrophosphate (1:1)	16687-06-2	1993	3.1C, 6.1D, 6.3A, 8.3A, 9.3C
Disulfide, dimethyl	624-92-0	2381	3.1B, 6.1C, 6.3B, 6.4A, 6.9A, 9.1B, 9.3B
Dithionous acid, disodium salt	7775-14-6	1384	4.2B, 6.1D, 6.4A, 9.1C, 9.3C
Dodecane	112-40-3		3.1D
Ethanamine, 50-70% aqueous solution	75-04-7	2270	3.1B, 6.1C, 6.9A, 8.2B, 8.3A, 9.3B
Ethanamine, N,N-diethyl-	121-44-8	1296	3.1B, 6.1C, 8.2A, 8.3A, 9.1D, 9.3B
Ethanamine, N-ethyl-	109-89-7	1154	3.1B, 6.1C, 6.5B, 6.9B, 8.2A, 8.3A, 9.1D, 9.2B, 9.3B
Ethanamine, N-ethyl-N-hydroxy-	3710-84-7		3.1C, 6.3A, 6.4A, 6.6B, 9.1C
Ethane, 1,1-dichloro-	75-34-3	2362	3.1B, 6.3B, 6.4A, 6.7B, 9.1D
Ethane, 1,1-diethoxy-	105-57-7	1088	3.1B, 6.1E, 6.3B, 9.1D, 9.2D
Ethane, 1,1'-oxybis-	60-29-7	1155	3.1A, 6.1D, 6.3B, 6.4A, 9.3C
Ethane, 1,1'-thiobis-	352-93-2	2375	3.1B, 6.1E, 6.3A, 6.4A
Ethane, 1,2-dichloro-	107-06-2	1184	3.1B, 6.1C, 6.3A, 6.4A, 6.5B, 6.6B, 6.7B, 6.9B, 9.1D, 9.3B
Ethane, 1,2-diethoxy-	629-14-1	1153	3.1C, 6.1E, 6.3B, 6.4A, 6.8B, 6.9B
Ethane, 1,2-dimethoxy-	110-71-4	2252	3.1B, 6.1D, 6.8A
Ethane, nitro-	79-24-3	2842	3.1C, 6.1D, 6.9B, 9.1C, 9.2C, 9.3C
Ethaneperoxoic acid, <5% in acetic acid and hydrogen peroxide	79-21-0	3149	3.1D, 5.1.1B, 6.1D, 6.9A, 8.1A, 8.2B, 8.3A, 9.1A, 9.3C

Substance	CAS Number	UN Number	Hazard Classification(s)
Ethaneperoxoic acid, 35-43% in acetic acid and hydrogen peroxide	79-21-0	3105	5.2D, 6.1B, 6.9A, 8.1A, 8.2A, 8.3A, 9.1A, 9.3A
Ethanethioic acid	507-09-5	2436	3.1B, 6.1B, 8.2B, 8.3A, 9.3B
Ethanethiol	75-08-1	2363	3.1A, 6.1C, 6.3B, 6.4A, 6.9B, 9.1A, 9.3C
Ethanol	64-17-5	1170	3.1B, 6.4A, 9.1D
Ethanol 40-80% + isopropanol 10-40% + methyl ethyl ketone 5-50%			3.1B, 6.1E, 6.3B, 6.4A, 6.9B, 9.1D
Ethanol, 2-(1-methylethoxy)-	109-59-1	1993	3.1C, 6.1D, 6.3A, 6.4A, 6.9B
Ethanol, 2-(2-butoxyethoxy)-	112-34-5		3.1D, 6.1E, 6.3B, 6.4A, 6.9B
Ethanol, 2-butoxy-	111-76-2		3.1D, 6.1C, 6.3B, 6.4A, 9.3B
Ethanol, 2-butoxy-, acetate	112-07-2		3.1D, 6.1D, 6.9B, 9.1D, 9.3C
Ethanol, 2-ethoxy-	110-80-5	1171	3.1C, 6.1D, 6.3B, 6.4A, 6.8A, 6.9B, 9.3C
Ethanol, 2-ethoxy-, acetate	111-15-9	1172	3.1C, 6.1D, 6.3B, 6.4A, 6.8A, 6.9B, 9.1D, 9.3C
Ethanol, 2-methoxy-	109-86-4	1188	3.1C, 6.1C, 6.3B, 6.4A, 6.8A, 6.9A, 9.3C
Ethanol, 2-methoxy-, acetate	110-49-6	1189	3.1C, 6.1D, 6.4A, 6.8A, 6.9A, 9.1C, 9.3C
Ethanol, 2-propoxy-	2807-30-9	1993	3.1C, 6.1C, 6.3B, 6.4A, 6.9B, 9.3C
Ethene, 1,2-dichloro-, (1E)-	156-60-5	1150	3.1B, 6.1D, 6.3A, 6.4A, 9.3C
Ethene, 1,2-dichloro-, (1Z)-	156-59-2	1150	3.1B, 6.1D, 6.3B, 6.4A, 6.9B
Ferrosilicon, with 30% or more but <90% silicon	8049-17-0	1408	4.3C, 6.1E
Formaldehyde, >35% aqueous solution with 7-10% methanol	50-00-0	1198	3.1C, 6.1B, 6.5B, 6.6B, 6.7A, 6.9B, 8.2C, 8.3A, 9.1D, 9.2A, 9.3B
Formaldehyde, >25% aqueous solution, containing not more than 5% methanol	50-00-0	2209	3.1D, 6.1B, 6.5B, 6.6B, 6.7A, 6.9B, 8.2C, 8.3A, 9.1D, 9.2A, 9.3B
Formamide, N,N-dimethyl-	68-12-2	2265	3.1C, 6.1D, 6.3B, 6.4A, 6.8A, 6.9A, 9.3C
Formic acid	64-18-6	1779	3.1C, 6.1C, 6.5B, 8.1A, 8.2B, 8.3A, 9.1D, 9.3C
Formic acid, ethyl ester	109-94-4	1190	3.1B, 6.1D, 6.3B, 6.4A, 9.3C
Formic acid, methyl ester	107-31-3	1243	3.1A, 6.1D, 6.3B, 6.4A, 6.9B, 9.3B
Furan	110-00-9	2389	3.1A, 6.1A, 6.3A, 6.6B, 6.7B, 6.9A, 8.3A, 9.1C, 9.3C
Furan, tetrahydro-	109-99-9	2056	3.1B, 6.1D, 6.3A, 6.4A, 6.7B, 6.9B, 9.3C
Furan, tetrahydro-2-methyl-	96-47-9	2536	3.1B, 6.1E, 6.4A, 9.1C
Heptanal	111-71-7	3056	3.1C, 6.1E, 6.4A, 9.1D, 9.2D
Heptane	142-82-5	1206	3.1B, 6.1E, 6.3B, 9.1B
Heptanol acetate, branched and linear	90438-79-2		3.1C, 9.1B
Hexane	110-54-3	1208	3.1B, 6.1E, 6.3B, 6.4A, 6.9A, 9.1B
Hexaneperoxoic acid, 3,5,5-trimethyl-, 1,1-dimethylethyl ester	13122-18-4	3105	5.2D, 8.2B, 8.3A, 9.1A
Hexanol, acetate, branched and linear	88230-35-7	1993	3.1C, 9.1B

Substance	CAS Number	UN Number	Hazard Classification(s)
Hydrazine, anhydrous	302-01-2	2029	3.1C, 6.1B, 6.5B, 6.6A, 6.7B, 6.8B, 6.9A, 8.2A, 8.3A, 9.1A, 9.3A
Hydrazine hydrate, or >37-64% aqueous solution	7803-57-8	2030	3.1D, 6.1B, 6.5B, 6.6A, 6.7B, 6.8B, 6.9A, 8.2B, 8.3A, 9.1A, 9.2D, 9.3A
Hydrogen peroxide, >60% aqueous solution	7722-84-1	2015	5.1.1A, 6.1D, 6.9B, 8.2A, 8.3A, 9.1D, 9.3B
Hydrogen peroxide, 20-60% aqueous solution	7722-84-1	2014	5.1.1B, 6.1D, 6.9B, 8.2B, 8.3A, 9.1D, 9.3C
Hydrogen peroxide, 8-20% aqueous solution	7722-84-1	2984	5.1.1C, 6.1E, 6.3A, 6.9B, 8.3A, 9.1D
Hydroperoxide, 1,1-dimethylethyl, 70% aqueous solution	75-91-2	3109	5.2F, 6.1C, 6.6B, 6.9B, 8.2C, 8.3A, 9.1B, 9.3B
Hydroperoxide, 1-methyl-1-phenylethyl 90-98%, cumene 2-10%	80-15-9	3107	5.2E, 6.1B, 6.6B, 6.9A, 8.2B, 8.3A, 9.1B, 9.2B, 9.3B
Hypochlorous acid, calcium salt (dry), > 30% available chlorine	7778-54-3	1748	5.1.1B, 6.1D, 8.1A, 8.2B, 8.3A, 9.1A, 9.2A, 9.3C
Hypochlorous acid, calcium salt (dry), 10-30% available chlorine	7778-54-3	2208	5.1.1C, 6.1D, 8.1A, 8.2C, 8.3A, 9.1A, 9.2A, 9.3C
Iodic acid, calcium salt	7789-80-2	1479	5.1.1B, 6.1D,
Iodic acid, potassium salt	7758-05-6	1479	5.1.1B, 6.1D
Isooctanol	26952-21-6		3.1D, 6.1D, 6.3B, 6.4A, 9.1D, 9.3C
Isosorbide 5-nitrate	16051-77-7	3251	4.1.3C, 6.1D, 6.9A, 9.3C
Isosorbide dinitrate mixture with not <60% lactose, mannose, starch or calcium hydrogen phosphate	87-33-2	2907	4.1.3B, 6.1D, 6.3B, 9.3C
Lead oxide	1309-60-0	1872	5.1.1C, 6.1C, 6.7B, 6.8A, 6.9A, 9.1A, 9.3A
Lithium	7439-93-2	1415	4.3A, 6.8A, 8.2B, 8.3A, 9.1C, 9.2C
Lithium hydride	7580-67-8	1414	4.3A, 6.1A, 6.9A, 8.2A, 8.3A, 9.1C, 9.2C
Lithium, butyl-, 15% in hexane	109-72-8	2445	3.1B, 4.2A, 4.3A, 8.2B, 8.3A, 9.1B, 9.2C
Magnesium pellets, turnings, ribbon, alloys > 50%	7439-95-4	1869	4.1.1B, 6.1E, 9.3C
Magnesium powder PG I	7439-95-4	1418	4.2B, 4.3A, 6.1E, 9.3C
Magnesium powder PG II	7439-95-4	1418	4.2B, 4.3B, 6.1E, 9.3C
Magnesium powder PG III	7439-95-4	1418	4.2C, 4.3C, 6.1E, 9.3C
Methyl ethyl ketone 10-50% + toluene 10-40% + xylene 10-65%			3.1B, 6.1D, 6.3A, 6.4A, 6.5B, 6.6B, 6.8A, 6.9A, 9.1D, 9.3C
Methyl ethyl ketone 40-60% + toluene 40-60% + methyl isobutyl ketone 0-60%			3.1B, 6.1D, 6.3A, 6.4A, 6.6B, 6.8A, 6.9A, 9.1D, 9.3B
Metaldehyde (acetaldehyde, homopolymer)	9002-91-9	1332	4.1.1B, 6.1B, 6.4A, 6.8B, 6.9B, 9.1B, 9.2D, 9.3B
Methanamine, N,N-dimethyl-, 40-50% aqueous solution	75-50-3	1297	3.1A, 6.1C, 8.2C, 8.3A, 9.1D, 9.3C
Methanamine, N-methyl-, 40-60% aqueous solution	124-40-3	1160	3.1B, 6.1C, 6.5B, 6.9A, 8.2B, 8.3A, 9.1D, 9.3B
Methane, dimethoxy-	109-87-5	1234	3.1B, 6.3B, 6.4A

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Methane, nitro-	75-52-5	1261	3.1C, 6.1D, 6.7B, 6.8B, 9.1C, 9.3C
Methane, thiobis-	75-18-3	1164	3.1B, 6.1D, 6.3B, 6.4A, 6.9A, 9.1D, 9.3C
Methanol	67-56-1	1230	3.1B, 6.1D, 6.4A, 6.8B, 6.9A, 9.3C
Methanol, sodium salt	124-41-4	1431	4.2B, 6.1D, 8.2B, 8.3A
Methyl propyl ether	557-17-5	2612	3.1B, 9.1C
Methylated spirits			3.1B, 6.1E, 6.4A, 6.8B, 6.9A, 9.1D
Morpholine	110-91-8	2054	3.1C, 6.1B, 6.9A, 8.1A, 8.2A, 8.3A, 9.1C, 9.2C, 9.3B
Morpholine, 4-methyl-	109-02-4	2535	3.1C, 6.1C, 6.9B, 8.2B, 8.3A, 9.1C, 9.3C
Naphthalene	91-20-3	1334	4.1.1B, 6.1D, 6.3B, 6.4A, 6.7A, 6.9A, 9.1A, 9.3B
Naphthalene, 1-nitro-	86-57-7	2538	4.1.1B, 6.1C, 6.3B, 6.4A, 9.1D, 9.3B
Naphthalene, decahydro-	91-17-8	1147	3.1C, 6.1C, 6.3B, 6.4A, 6.9B, 9.1B
Naphthenic acids, copper salts (flammable solution; flashpoint 23-60°C)	1338-02-9	3009	3.1C, 6.1D, 6.3B, 6.4A, 9.1A, 9.2C, 9.3C
Neodecanoic acid, ethenyl ester	51000-52-3		3.1D, 9.1B
Nitric acid, >70%, other than red fuming	7697-37-2	2031	5.1.1A, 6.1D, 6.9B, 8.1A, 8.2A, 8.3A, 9.1D
Nitric acid, aluminium salt	13473-90-0	1438	5.1.1C, 6.1D, 6.3B, 6.4A, 6.8B, 9.1B, 9.3C
Nitric acid, ammonium salt	6484-52-2	1942	5.1.1C, 6.1E, 6.4A, 9.1D
Nitric acid, barium salt	10022-31-8	1446	5.1.1B, 6.1D, 6.3B, 6.4A, 6.9B, 9.3B
Nitric acid, bismuth (3+) salt	10361-44-1	1479	5.1.1B
Nitric acid, cadmium salt	10325-94-7	3087	5.1.1B, 6.1C, 6.7A, 6.8A, 6.9A, 8.3A, 9.1A, 9.3B
Nitric acid, calcium salt	10124-37-5	1454	5.1.1C, 6.1D, 6.3B, 9.3B
Nitric acid, cerium (3+) salt	10108-73-3	1477	5.1.1B, 6.1E, 8.3A, 9.1B
Nitric acid, chromium (3+) salt	13548-38-4	2720	5.1.1C, 6.5A, 6.5B, 9.1C
Nitric acid, cobalt (2+) salt	10141-05-6	1477	5.1.1B, 6.1D, 6.3B, 6.4A, 6.5A, 6.5B, 6.7B, 6.8B, 6.9A, 9.1B, 9.3C
Nitric acid, copper (2+) salt	3251-23-8	1477	5.1.1B, 6.1D, 6.5A, 6.8B, 6.9A, 8.2C, 8.3A, 9.1A, 9.3B
Nitric acid, iron (3+) salt	10421-48-4	1466	5.1.1C, 6.1D, 6.3B, 6.4A
Nitric acid, lanthanum (3+) salt	10099-59-9	1477	5.1.1B, 6.1E, 6.3A, 6.4A,
Nitric acid, lead (2+) salt	10099-74-8	1469	5.1.1B, 6.1C, 6.3B, 6.4A, 6.6B, 6.7B, 6.8A, 6.8C, 6.9A, 9.1A, 9.3B
Nitric acid, lithium salt	7790-69-4	2722	5.1.1C, 6.3A, 6.4A, 6.8A
Nitric acid, magnesium salt	10377-60-3	1474	5.1.1C, 6.3B, 6.4A
Nitric acid, manganese (2+) salt	10377-66-9	2724	5.1.1C, 9.1B
Nitric acid, nickel (2+) salt	13138-45-9	2725	5.1.1C, 6.3B, 6.4A, 6.5A, 6.5B, 6.7A, 9.1B
Nitric acid, potassium salt	7757-79-1	1486	5.1.1B, 6.1D, 6.3B, 6.4A, 9.3C
Nitric acid, red fuming	7697-37-2	2032	5.1.1A, 6.1A, 6.9B, 8.1A, 8.2A, 8.3A, 9.1C

Substance	CAS Number	UN Number	Hazard Classification(s)
Nitric acid, silver (1+) salt	7761-88-8	1493	5.1.1B, 6.1D, 6.9A, 8.2B, 8.3A, 9.1A, 9.2A, 9.3A
Nitric acid, sodium salt	7631-99-4	1498	5.1.1C, 6.1D, 9.3C
Nitric acid, strontium salt	10042-76-9	1507	5.1.1C, 6.1D, 6.3A, 6.4A, 6.9B, 9.1A, 9.3C
Nitric acid, zinc salt	7779-88-6	1514	5.1.1B, 6.1C, 9.1A, 9.3B
Nitric acid, zirconium (4+) salt	13746-89-9	2728	5.1.1C, 6.1E
Nitrous acid, 3-methylbutyl ester	110-46-3	1113	3.1B, 6.1C, 6.4A, 6.5A, 6.5B, 9.3C
Nitrous acid, potassium salt	7758-09-0	1488	5.1.1B, 6.1C, 6.3B, 6.4A, 6.6B, 6.9B, 9.1A, 9.3B
Nitrous acid, sodium salt	7632-00-0	1500	5.1.1C, 6.1C, 6.4A, 6.6B, 6.9B, 9.1A, 9.3B
Nonane	111-84-2	1920	3.1C, 6.1D, 6.3B, 6.4A, 9.1A
Octane	111-65-9	1262	3.1B, 6.1E, 6.3B, 6.4A, 9.1A
Oil, eucalyptus	8000-48-4	2319	3.1C, 6.1D, 6.3A, 6.4A, 9.2D, 9.4C
Oil, turpentine	8006-64-2	1299	3.1C, 6.1D, 6.3A, 6.4A, 6.5B, 9.1C
Oils, camphor	8008-51-3	1130	3.1D, 6.1D, 6.3B, 6.9A, 9.3C
Oils, pine (flammable; flashpoint 23-60°C)	8002-09-3	1272	3.1C, 6.1E, 6.3A, 6.4A, 9.1C
Oils, pine (flammable; flashpoint 60-93°C)	8002-09-3	1272	3.1D, 6.1E, 6.3A, 6.4A, 9.1C
Oxirane, chloromethyl-	106-89-8	2023	3.1C, 6.1B, 6.5B, 6.6A, 6.7A, 6.8B, 6.9B, 8.2C, 8.3A, 9.1D, 9.3A
Oxirane, methyl-	75-56-9	1280	3.1A, 6.1C, 6.3A, 6.4A, 6.6A, 6.7B, 6.8B, 6.9B, 9.1C, 9.3B
Paraformaldehyde	30525-89-4	2213	4.1.1B, 6.1D, 6.3A, 6.5A, 6.5B, 6.6A, 6.7A, 6.9A, 8.3A, 9.1D, 9.2D, 9.3C
Pentanal	110-62-3	2058	3.1B, 6.1D, 6.3A, 8.3A, 9.1D
Pentane	109-66-0	1265	3.1B, 6.1E, 6.3B, 6.4A, 9.1D
Pentane, 1-chloro-	543-59-9		3.1B, 6.1D, 6.3B, 6.4A, 9.1B
Pentane, 2,2,4-trimethyl-	540-84-1	1262	3.1B, 6.1E, 6.3B, 6.4A, 9.1A
Perboric acid, potassium salt	13769-41-0	3247	5.1.1B, 6.1E, 6.4A
Perboric acid, sodium salt	7632-04-4	3247	5.1.1B, 6.1E, 6.4A
Perchloric acid, 50-72% aqueous solution	7601-90-3	1873	5.1.1A, 6.1D, 6.8C, 6.9A, 8.1A, 8.2A, 8.3A, 9.1D, 9.3B
Perchloric acid, ammonium salt	7790-98-9	1442	5.1.1B, 6.1D, 6.3B, 6.4A, 6.8C, 6.9A, 9.3C
Perchloric acid, barium salt	13465-95-7	1447	5.1.1B, 6.1D, 6.3A, 6.4A, 6.8C, 6.9A, 9.1C
Perchloric acid, lead (2+) salt	13637-76-8	1470	5.1.1B, 6.1C, 6.6B, 6.7B, 6.8A, 6.9A, 9.1A, 9.3B
Perchloric acid, magnesium salt	10034-81-8	1475	5.1.1B, 6.1D, 6.3B, 6.4A, 6.8C, 6.9A
Perchloric acid, potassium salt	7778-74-7	1489	5.1.1B, 6.1D, 6.3B, 6.4A, 6.8C, 6.9A, 9.1B, 9.2B, 9.3C
Perchloric acid, sodium salt	7601-89-0	1502	5.1.1B, 6.1E, 6.3B, 6.4A, 6.8C, 6.9A
Periodic acid	10450-60-9	3085	5.1.1A, 6.1B, 6.4A, 8.2C
Periodic acid, potassium salt	7790-21-8	1479	5.1.1A, 6.3A, 6.4A

Substance	CAS Number	UN Number	Hazard Classification(s)
Periodic acid, sodium salt	7790-28-5	1479	5.1.1A, 6.3B, 6.4A
Permanganic acid, potassium salt	7722-64-7	1490	5.1.1B, 6.1D, 6.8B, 6.9A, 8.2C, 8.3A, 9.1A, 9.2A, 9.3C
Permanganic acid, sodium salt	10101-50-5	1503	5.1.1B, 6.1D, 6.8B, 6.9A, 8.2C, 8.3A, 9.1A, 9.2C, 9.3C
Peroxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis(1,1-dimethylethyl)	78-63-7	3105	5.2D, 6.1E, 6.3A, 6.4A, 9.1D
Peroxide, (3,3,5-trimethylcyclohexylidene)bis(1,1-dimethylethyl), ≤57% in dibutyl phthalate ≥43%	6731-36-8	3107	5.2E, 6.3A, 6.4A, 6.5B, 6.8A, 9.1D
Peroxide, bis(1,1-dimethylethyl)	110-05-4	3107	5.2E, 6.1E, 6.3B, 6.4A
Peroxide, bis(1-methyl-1-phenylethyl)	80-43-3	3110	5.2F, 6.1E, 6.3A, 6.4A, 6.5B, 6.8B, 6.9B, 9.1B
Peroxide, bis(2,4-dichlorobenzoyl), paste in silicon oil	133-14-2	3106	5.2D, 6.3A, 6.4A,
Peroxide, dibenzoyl, ≥77% aqueous solution	94-36-0	3102	5.2B, 6.4A, 6.5B, 9.1D
Peroxydicarbonic acid, bis[4-(1,1-dimethylethyl)cyclohexyl] ester	15520-11-3	3114	5.2C
Peroxydisulfuric acid, diammonium salt	7727-54-0	1444	5.1.1C, 6.1D, 6.3A, 6.4A, 6.5A, 6.5B, 6.9B, 9.1D, 9.3C
Peroxydisulfuric acid, dipotassium salt	7727-21-1	1492	5.1.1C, 6.1D, 6.3A, 6.4A, 6.5A, 6.5B, 9.1D, 9.3C
Peroxydisulfuric acid, disodium salt	7775-27-1	1505	5.1.1C, 6.1D, 6.3A, 6.4A, 6.5A, 6.5B, 9.1D, 9.2C, 9.3C
Phenol, 2,4,6-trinitro- (wetted with >30% water)	88-89-1	1344	4.1.3A, 6.1B, 6.3B, 6.5B, 8.3A, 9.1D, 9.3B
Phenol, 2,4-dinitro- (wetted with not less than 15% water by mass)	51-28-5	1320	4.1.3A, 6.1B, 6.3A, 6.4A, 6.5B, 6.9A, 9.1A, 9.2D, 9.3A
Phenol, 2,5-dinitro- (wetted with not less than 15% water by mass)	329-71-5	1320	4.1.3A, 6.1B, 6.9B, 9.1B, 9.3A
Phenol, 2,6-dinitro- (wetted with not less than 15% water by mass)	573-56-8	1320	4.1.3A, 6.1B, 6.9B, 9.1C, 9.3A
Phenol, 2-amino-4,6-dinitro-, monosodium salt, (wetted)	831-52-7	1349	4.1.3A, 6.1D, 6.5B, 9.3B
Phosphorous acid, trimethyl ester	121-45-9	2329	3.1C, 6.1D, 6.3A, 6.4A, 6.8B, 6.9B, 9.3C
Phosphorus, amorphous (red)	7723-14-0	1338	4.1.1B, 6.1D, 6.9A, 9.1C
Phosphorus, white, yellow, dry or in solution	7723-14-0	1381	4.2A, 6.1A, 6.9A, 8.2A, 8.3A, 9.1A, 9.3A
Piperidine	110-89-4	2401	3.1B, 6.1B, 6.8B, 6.9B, 8.2A, 8.3A, 9.1D, 9.3A
Piperidine, 1-ethyl-	766-09-6	2386	3.1B, 8.2B, 8.3A, 9.1B
Piperidine, 1-methyl-	626-67-5	2399	3.1B, 8.2B, 8.3A, 9.1C
Potassium	7440-09-7	2257	4.3A, 8.2B, 8.3A, 9.1C
Potassium hydrosulphite	14293-73-3	1929	4.2B, 9.1C, 9.3C
Potassium perborate	13769-41-0	3247	5.1.1B, 6.1E, 6.4A
Potassium sulphide	37199-66-9	1382	4.2B, 6.1B, 8.2B, 8.3A

Substance	CAS Number	UN Number	Hazard Classification(s)
Potassium superoxide	12030-88-5	2466	5.1.1A, 6.1E, 8.2B, 8.3A
Propanal	123-38-6	1275	3.1B, 6.1D, 6.3B, 6.4A, 9.1D, 9.3C
Propanal, 2-methyl-	78-84-2	2045	3.1B, 6.1D, 6.3B, 6.4A, 6.6B, 9.1D, 9.3B
Propane, 1,1'-oxybis-	111-43-3	2384	3.1B, 6.3B, 6.4A, 9.1D
Propane, 1-nitro-	108-03-2	2608	3.1C, 6.1D, 6.4A, 9.1C, 9.3B
Propane, 2,2'-oxybis-	108-20-3	1159	3.1B, 6.3B, 9.1C
Propane, 2-bromo-2-methyl-	507-19-7	2342	3.1B, 6.3A, 6.4A, 9.1D
Propane, 2-chloro-	75-29-6	2356	3.1A, 6.1D, 9.1C, 9.3C
Propane, 2-nitro-	79-46-9	2608	3.1C, 6.1C, 6.4A, 6.6B, 6.7B, 6.9A, 9.1B, 9.3B
Propanenitrile, 2,2'-azobis(2-methyl)-	78-67-1	3234	4.1.2C, 6.1D, 9.1B
Propanenitrile, 2-methyl-	78-82-0	2284	3.1B, 6.1B, 6.3B, 6.4A, 6.9A, 9.1D, 9.3A
Propanoic acid, 2-hydroxy-, ethyl ester	97-64-3	1192	3.1C, 6.1E, 6.3A, 8.3A, 9.1D
Propanoic acid, 2-methyl-	79-31-2	2529	3.1C, 6.1C, 8.1A, 8.2C, 8.3A, 9.1D, 9.2D, 9.3B
Propanoic acid, 3-ethoxy-, ethyl ester	763-69-9	3272	3.1C, 6.3B, 9.1C
Propanoic acid, butyl ester	590-01-2	1914	3.1C, 6.3B, 6.4A
Propanoic acid, ethyl ester	105-37-3	1195	3.1B, 6.1E, 6.3A, 6.4A, 9.1D
Propanoic acid, methyl ester	554-12-1	1248	3.1B, 6.1E, 6.3A, 6.4A
Propanoic acid, pentyl ester	624-54-4		3.1C, 9.1D
Propanol, 1(or 2)-(2-methoxymethylethoxy)-	34590-94-8		3.1D
Pyridine	110-86-1	1282	3.1B, 6.1D, 6.3A, 6.7B, 6.9B, 8.3A, 9.1C, 9.3C
Pyridine, 2,4,6-trimethyl-	108-75-8	1993	3.1C, 6.1C, 6.3B, 6.9A, 9.1B, 9.3B
Pyridine, 2,6-dimethyl-	108-48-5	2929	3.1C, 6.1D, 6.3A, 6.4A, 9.1C, 9.3B
Pyrrolidine	123-75-1	1922	3.1B, 6.1C, 6.9A, 8.1A, 8.2B, 8.3A, 9.1C, 9.3B
Rubidium	7440-17-7	1423	4.3A
Silane, chlorotrimethyl-	75-77-4	1298	3.1B, 6.1C, 8.1A, 8.2B, 8.3A
Silane, dichlorodimethyl-	75-78-5	1162	3.1B, 6.1C, 8.1A, 8.2B, 8.3A, 9.1D, 9.3C
Silane, trichloromethyl-	75-79-6	1250	3.1B, 6.1C, 8.1A, 8.2A, 8.3A, 9.1D, 9.3C
Silicic acid, tetraethyl ester	78-10-4	1292	3.1C, 6.1D, 6.3B, 6.4A, 6.9B
Silicon	7440-21-3	1346	4.1.1B, 6.1E, 6.3B, 6.4A
Silver oxide	20667-12-3	1479	5.1.1B, 6.1D, 9.1A, 9.3C
Sodium	7440-23-5	1428	4.3A, 8.2A, 8.3A, 9.1D
Sodium hydride	7646-69-7	1427	4.3A, 9.3C
Sodium hydrosulphide	16721-80-5	2318	4.2B, 6.1B, 6.3A, 6.4A, 8.1A, 9.1D, 9.3A
Sodium peroxide	1313-60-6	1504	5.1.1A, 8.1A, 8.2A, 8.3A, 9.1D
Sodium sulphide	1313-82-2	1385	4.2B, 6.1C, 8.2C, 8.3A, 9.1A, 9.3B
Sulfur, excluding formed sulfur	7704-34-9	1350	4.1.1B, 6.4A

Substance	CAS Number	UN Number	Hazard Classification(s)
Sulfuric acid, cerium (4+) salt (2:1)	13590-82-4	1479	5.1.1B
Thermit welding powder, 75% iron oxide, 25% aluminium, PG II		3178	4.1.1A, 6.3A, 6.9A, 8.3A, 9.1D, 9.3C
Thermit welding powder, 75% iron oxide, 25% aluminium, PG III		3178	4.1.1B, 6.3A, 6.9A, 8.3A, 9.1D, 9.3C
Thiophene	110-02-1	2414	3.1B, 6.1C, 6.3B, 6.4A, 6.9B, 9.3B
Thiophene, tetrahydro-	110-01-0	2412	3.1B, 6.1D, 6.3A, 6.4A, 9.1C, 9.3C
Thiourea dioxide	1758-73-2	3341	4.2C, 6.1B, 6.3A, 6.4A, 6.8B, 6.9B, 9.1D, 9.3C
Tridecane	629-50-5		3.1D, 6.1E
Undecane	1120-21-4	2330	3.1C, 9.1D
Urea, compd. with hydrogen peroxide (1:1)	124-43-6	1511	5.1.1C, 6.1D, 8.2C, 8.3A, 9.1D
Zinc ashes	7440-66-6	1435	4.3B, 6.1E, 9.1A
Zinc phosphide	1314-84-7	1714	4.3A, 6.1B, 6.6B, 6.9B, 9.1A, 9.3A
Zinc powder pyrophoric	7440-66-6	1383	4.2A, 6.1E, 9.1A
Zinc powder/dust, PG I	7440-66-6	1436	4.2B, 4.3A, 6.1E, 9.1A
Zinc powder/dust, PG II	7440-66-6	1436	4.2B, 4.3B, 6.1E, 9.1A
Zinc powder/dust, PG III	7440-66-6	1436	4.2C, 4.3C, 6.1E, 9.1A

Table 6

Petrol and petroleum products

Substance Description	UN Number	Hazard classification(s)
Petrol (unleaded)	1203	3.1A, 6.1E, 6.3B, 6.7B, 9.1B

Description: A complex combination of hydrocarbons consisting primarily of straight chain and branched chain paraffins, cycloparaffins, aromatic and olefinic hydrocarbons having carbon numbers predominantly in the range C₄ to C₁₂, and boiling in the range 15°C to 220°C.

Aromatic hydrocarbons: Maximum 55% (volume)

Benzene: Maximum 4% (volume)

Additives: (each < 0.1% w/w)

Azo dyes

Detergent additives

Antioxidants

Metal deactivator

Corrosion inhibitor

Substance Description	UN Number	Hazard classification(s)
Aviation gasoline and racing gasoline (Avgas 100 and Avgas 100LL) <u>Description:</u> A complex combination of hydrocarbons consisting primarily of straight chain and branched chain paraffins, cycloparaffins, aromatic and olefinic hydrocarbons having carbon numbers predominantly in the range C ₄ to C ₁₂ , and boiling in the range 15°C to 180°C. Aromatic hydrocarbons: Maximum 55% (volume) Benzene: Maximum 4% (volume) <u>Additives:</u> (each <0.1% w/w) Azo dyes Detergent additives Antioxidants Metal deactivator Corrosion inhibitor Tetraethyl lead <0.14% w/v (<0.85 g Pb/L) 1,2-Dibromoethane <0.1% w/v (<1 g/L)	1203	3.1A, 6.1E, 6.3B, 6.7B, 6.8A, 9.1B
Diesel fuel (automotive gas oil and marine diesel fuel) <u>Description:</u> A complex combination of hydrocarbons having carbon numbers predominantly in the range C ₉ to C ₂₀ and boiling in the range of 160°C to 400°C, with a flashpoint above 60°C. <u>Additives:</u> (each <0.1% w/w) Cold flow improver Antistatic additive Cetane improver Corrosion inhibitor Lubricity additives Antioxidants	1202	3.1D, 6.1E, 6.3B, 6.7B, 9.1B
Low flashpoint diesel (low flash domestic heating oil and alpine diesel) <u>Description:</u> A complex combination of hydrocarbons having carbon numbers predominantly in the range C ₉ to C ₂₀ and boiling in the range of 140°C to 400°C, with a flashpoint above 50°C. <u>Additives:</u> (each <0.1% w/w) Cold flow improver Antistatic additive Cetane improver Corrosion inhibitor Lubricity additives Antioxidants	1202	3.1C, 6.1E, 6.3B, 6.7B, 9.1B

Substance Description	UN Number	Hazard classification(s)
Kerosene (kerosine) (including Jet A-1, aviation turbine fuels)	1223	3.1C, 6.1E, 6.3B, 9.1B

Description: A complex combination of hydrocarbons consisting primarily of hydrocarbons having carbon numbers predominantly in the range C₉ to C₁₆ and boiling in the range of 140°C to 300°C.

Additives: (each <0.1% w/w)

Dyes

Antistatic additives

Metal deactivators

Antioxidants

Diethyleneglycol monomethyl ether (icing inhibitor) <0.2%

Mineral turpentine

3.1C, 6.1E, 6.3B, 9.1B

Description: A complex combination of hydrocarbons consisting primarily of aromatic hydrocarbons having carbon numbers predominantly in the range C₈ to C₁₀ and boiling in the range of 135°C to 210°C.

A mixture of light aromatic petroleum naphtha, CAS number 64742-95-6, and medium aliphatic petroleum naphtha, CAS number 64742-88-7

Crude oils – extremely flammable

3.1A, 6.1E, 6.3B, 6.7B, 9.1C

Description: Crude oil consists predominantly of hydrocarbons of the aliphatic, aromatic and naphthenic types and it also contains smaller amounts of organic compounds containing sulphur, nitrogen and oxygen, as well as low concentrations of organo-metallic complexes, in particular of vanadium and nickel. Olefins are rarely found in crude oils.

Crude oils – highly flammable

3.1B, 6.1E, 6.3B, 6.7B, 9.1C

Description: Crude oil consists predominantly of hydrocarbons of the aliphatic, aromatic and naphthenic types and it also contains smaller amounts of organic compounds containing sulphur, nitrogen and oxygen, as well as low concentrations of organo-metallic complexes, in particular of vanadium and nickel. Olefins are rarely found in crude oils.

Crude oils – flammable

3.1C, 6.1E, 6.3B, 6.7B, 9.1C

Description: Crude oil consists predominantly of hydrocarbons of the aliphatic, aromatic and naphthenic types and it also contains smaller amounts of organic compounds containing sulphur, nitrogen and oxygen, as well as low concentrations of organo-metallic complexes, in particular of vanadium and nickel. Olefins are rarely found in crude oils.

Substance Description	UN Number	Hazard classification(s)
Crude oils – low flammability <u>Description:</u> Crude oil consists predominantly of hydrocarbons of the aliphatic, aromatic and naphthenic types and it also contains smaller amounts of organic compounds containing sulphur, nitrogen and oxygen, as well as low concentrations of organo-metallic complexes, in particular of vanadium and nickel. Olefins are rarely found in crude oils.		3.1D, 6.1E, 6.3B, 6.7B, 9.1C
Heavy fuel oils <u>Description:</u> Heavy fuel oils are blended products based on the residues from various refinery distillation and cracking processes with flashpoints above 60°C. Heavy fuel oil streams contain saturated, aromatic and olefinic hydrocarbons, mainly in the carbon number range C ₉ to C ₅₀ . The boiling ranges of these streams are approximately 160°C to 600°C and they may contain 4 to 6 ring polycyclic aromatic hydrocarbons. In addition, as they include residual streams, they may also contain low concentrations of heavy metals such as vanadium and nickel.		3.1D, 6.3B, 6.7B, 9.1C
Fuel oil manufactured from waste lubricating oil <u>Description:</u> A complex combination of hydrocarbons obtained by subjecting used motor lubricating oil to various treatment processes to remove heavy metals, additive components, water, sludge, solid particles and volatile fractions. It consists predominantly of hydrocarbons having carbon numbers in the range of C ₂₀ to C ₄₀ . The oil shall meet the following specification: Lead: (100 parts-per-million maximum) Arsenic: (5 parts-per-million maximum) Cadmium: (2 parts-per-million maximum) Chromium: (10 parts-per-million maximum) Total halogens*: (1,000 parts-per-million maximum) Flashpoint: greater than 60°C *The oil shall contain no polychlorinated biphenyls (PCBs)		3.1D, 6.3B, 6.7B, 9.1C
Cutback bitumen (containing more than 10% kerosene) <u>Description:</u> Cutback bitumen is a mixture of bitumen and kerosene, with the kerosene content not exceeding 20% by mass.		3.1D, 6.3B, 9.1C

Substance Description	UN Number	Hazard classification(s)
Cutback bitumen (containing more than 7% but less than 10% kerosene)		3.1D, 9.1C
<u>Description:</u> Cutback bitumen is a mixture of bitumen and kerosene.		
Cutback bitumen (containing more than 2.5% but less than 7% kerosene)		9.1C
<u>Description:</u> Cutback bitumen is a mixture of bitumen and kerosene.		
Aliphatic hydrocarbon solvents – very low flashpoint		3.1A, 6.1E, 6.3B, 9.1B
Complex mixtures of hydrocarbons consisting predominantly of straight-chain, branched-chain, and cyclic alkanes. Aromatic hydrocarbons are less than 1%. Products typically have carbon numbers in the range C ₄ to C ₁₂ and boil from -20°C to 220°C.		
Flash Point: less than 23°C		
Initial Boiling Point: less than or equal to 35°C		
Aliphatic hydrocarbon solvents – low flashpoint		3.1B, 6.1E, 6.3B, 9.1B
Complex mixtures of hydrocarbons consisting predominantly of straight-chain, branched-chain, and cyclic alkanes. Aromatic hydrocarbons are less than 1%. Products typically have carbon numbers in the range C ₅ to C ₁₂ and boil from 35°C to 220°C.		
Flash Point: less than 23°C		
Initial Boiling Point: greater than 35°C		
Aliphatic hydrocarbon solvents – medium flashpoint		3.1C, 6.1E, 6.3B, 9.1B
Complex mixtures of hydrocarbons consisting predominantly of straight-chain, branched-chain, and cyclic alkanes. Aromatic hydrocarbons are less than 1%. Products typically have carbon numbers in the range C ₉ to C ₁₆ and boil from 150°C to 300°C.		
Flash Point: Greater than or equal to 23°C but less than or equal to 60°C		
Aliphatic hydrocarbon solvents – high flashpoint		3.1D, 6.1E, 6.3B
Complex mixtures of hydrocarbons consisting predominantly of straight-chain, branched-chain, and cyclic alkanes. Aromatic hydrocarbons are less than 1%. Products typically have carbon numbers in the range C ₁₁ to C ₂₅ and boil from 205°C to 400°C.		
Flash Point: Greater than 60°C but less than or equal to 93°C		

Substance Description	UN Number	Hazard classification(s)
Low aromatic hydrocarbon solvents – very low flash point Complex mixtures of hydrocarbons consisting of straight-chain, branched-chain, and cyclic alkanes and aromatic hydrocarbons. Aromatic hydrocarbons are less than 30%. Products typically have carbon numbers in the range C ₄ to C ₁₂ and boil from 20°C to 220°C. Flash Point: less than 23°C Initial Boiling Point: less than 35°C		3.1A, 6.1E, 6.3B, 6.7B, 9.1B
Low aromatic hydrocarbon solvents – low flashpoint Complex mixtures of hydrocarbons consisting of straight-chain, branched-chain, and cyclic alkanes and aromatic hydrocarbons. Aromatic hydrocarbons are less than 30%. Products typically have carbon numbers in the range C ₅ to C ₁₂ and boil from 35°C to 230°C. Flash Point: less than 23°C Initial Boiling Point: greater than 35°C		3.1B, 6.1E, 6.3B, 6.7B, 9.1B
Low aromatic hydrocarbon solvents – medium flashpoint Complex mixtures of hydrocarbons consisting of straight-chain, branched-chain, and cyclic alkanes and aromatic hydrocarbons. Aromatic hydrocarbons are less than 30%. Products typically have carbon numbers in the range C ₉ to C ₁₈ and boil from 140°C to 300°C. Flash Point: Greater than or equal to 23°C but less than or equal to 60°C		3.1C, 6.1E, 6.3B, 9.1B
Low aromatic hydrocarbon solvents – high flashpoint Complex mixtures of hydrocarbons consisting of straight-chain, branched-chain, and cyclic alkanes and aromatic hydrocarbons. Aromatic hydrocarbons are less than 30%. Products typically have carbon numbers in the range C ₁₁ to C ₂₅ and boil from 200°C to 400°C. Flash Point: Greater than 60°C but less than or equal to 93°C		3.1D, 6.1E, 6.3B, 9.1B
Medium aromatic hydrocarbon solvents – very low flashpoint Complex mixtures of hydrocarbons consisting of straight-chain, branched-chain, and cyclic alkanes and aromatic hydrocarbons. Aromatic hydrocarbon content is between 30% and 70%. Products typically have carbon numbers in the range C ₄ to C ₁₂ and boil from 20°C to 220°C. Flash Point: less than 23°C Initial Boiling Point: greater than 35°C		3.1A, 6.1E, 6.3B, 6.7B, 9.1B

Substance Description	UN Number	Hazard classification(s)
Medium aromatic hydrocarbon solvents – low flashpoint Complex mixtures of hydrocarbons consisting of straight-chain, branched-chain, and cyclic alkanes and aromatic hydrocarbons. Aromatic hydrocarbon content is between 30% and 70%. Products typically have carbon numbers in the range C ₅ to C ₁₂ and boil from 35°C to 230°C. Flash Point: less than 23°C Initial Boiling Point: greater than 35°C		3.1B, 6.1E, 6.3B, 6.7B, 9.1B
Medium aromatic hydrocarbon solvents – medium flashpoint Complex mixtures of hydrocarbons consisting of straight-chain, branched-chain, and cyclic alkanes and aromatic hydrocarbons. Aromatic hydrocarbon content is between 30% and 70%. Products typically have carbon numbers in the range C ₉ to C ₂₀ and boil from 150°C to 350°C. Flash Point: Greater than or equal to 23°C but less than or equal to 60°C		3.1C, 6.1E, 6.3B, 6.7B, 9.1B
Medium aromatic hydrocarbon solvents – high flashpoint Complex mixtures of hydrocarbons consisting of straight-chain, branched-chain, and cyclic alkanes and aromatic hydrocarbons. Aromatic hydrocarbon content is between 30% and 70%. Products typically have carbon numbers in the range C ₁₁ to C ₂₅ and boil from 200°C to 400°C. Flash Point: Greater than 60°C but less than or equal to 93°C		3.1D, 6.1E, 6.3B, 9.1B
Aromatic hydrocarbon solvents – medium flashpoint Complex mixtures of hydrocarbons consisting predominantly of aromatic hydrocarbons. Aromatic hydrocarbon content is greater than 70%. Products typically have carbon numbers in the range C ₈ to C ₁₆ and boil from 135°C to 290°C. Flash Point: Greater than or equal to 23°C but less than or equal to 60°C		3.1C, 6.1E, 6.3B, 9.1B
Aromatic hydrocarbon solvents – high flashpoint Complex mixtures of hydrocarbons consisting predominantly of aromatic hydrocarbons. Aromatic hydrocarbon content is greater than 70%. Products typically have carbon numbers in the range C ₁₁ to C ₁₆ and boil from 195°C to 290°C. Flash Point: Greater than 60°C but less than or equal to 93°C		3.1D, 6.1E, 6.3B, 9.1B

Schedule 2

List of substances (scheduled toxic substances) to be transferred

Substance Description	CAS Number	UN Number	Hazard Classification(s)
[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-, (o-tolidine)	119-93-7	2811	6.1D, 6.3B, 6.4A, 6.6B, 6.7B, 9.1B, 9.3B
1,2-Ethanediol, (ethylene glycol)	107-21-1		6.1D, 6.4A, 6.9A, 9.3C
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(oxiranylmethyl)-, (triglycidalisocyanurate)	2451-62-9		6.1C, 6.5A, 6.5B, 6.6A, 6.9A, 8.3A, 9.1C, 9.3B
1-Naphthalenamine	134-32-7	2077	6.1D, 6.4A, 6.6B, 9.1B, 9.3C
1-Octadecanamine	124-30-1		6.1D, 6.5B, 8.2C, 8.3A, 9.1B, 9.3C
2-Propenoic acid, 2-methyl- (stabilized), (methacrylic acid)	79-41-4	2531	3.1D, 6.1C, 6.9B, 8.2B, 8.3A, 9.1D, 9.2B, 9.3C
2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, (dimethylaminoethyl methacrylate)	2867-47-2	2522	3.1D, 6.1C, 8.2C, 8.3A, 9.1D, 9.3B
Acetic acid, >50-80% aqueous solution	64-19-7	2790	3.1D, 6.1D, 6.9B, 8.1A, 8.2B, 8.3A, 9.1D, 9.3C
Acetic acid, >30-50% aqueous solution	64-19-7	2790	6.1D, 6.9B, 8.1A, 8.2C, 8.3A, 9.1D, 9.3C
Acetic acid, 10-30% aqueous solution	64-19-7	2790	6.1E, 6.9B, 8.1A, 8.2C, 8.3A
Acridine	260-94-6	2713	6.1D, 6.3A, 6.4A, 9.1A, 9.3B
Ammonia, >10-35% aqueous solution	1336-21-6	2672	6.1D, 8.1A, 8.2C, 8.3A, 9.1A, 9.3C
Ammonia, 2-10% aqueous solution	1336-21-6		6.1E, 6.3A, 6.4A, 9.1D
Antimony	7440-36-0	2871	6.3B, 6.4A, 6.7B, 6.8B, 6.9B, 9.1D
Arsenic	7440-38-2	1558	6.1B, 6.6B, 6.7A, 6.9A, 9.1A, 9.3A
Benzene, 2,4-diisocyanato-1-methyl-, (toluene diisocyanate)	584-84-9	2078	6.1A, 6.3B, 6.4A, 6.5A, 6.5B, 6.7B, 6.9A, 9.1C, 9.3B
Benzenemethanaminium, N-[2-[(2,6-dimethylphenyl)amino]-2-oxoethyl]-N,N-diethyl-, benzoate, (denatonium benzoate, bitrex)	3734-33-6		6.1D, 6.4A, 6.9B, 9.3C
Cadmium	7440-43-9	2570	6.1B, 6.6A, 6.7A, 6.8A, 6.9A, 9.1A, 9.2C, 9.3B
Cyclohexanamine	108-91-8	2357	3.1C, 6.1B, 6.5B, 6.6B, 6.8B, 6.9A, 8.2B, 8.3A, 9.1D, 9.3A
Disulfurous acid, disodium salt, (sodium metabisulphite)	7681-57-4		6.1D, 6.3A, 6.5A, 6.5B, 8.3A, 9.1D, 9.2B, 9.3C
Ethane, 1,1,1-trichloro-	71-55-6	2831	6.1D, 6.3A, 6.4A, 6.8B, 6.9B, 9.1D, 9.2A
Ethane, 1,1,2,2-tetrachloro-	79-34-5	1702	6.1C, 6.3A, 6.4A, 6.7B, 6.9B, 9.1D, 9.3B, 9.4C
Ethene, tetrachloro-, (perchloroethylene)	127-18-4	1897	6.1E, 6.3A, 6.4A, 6.7A, 6.9B, 9.1A, 9.2C, 9.3B
Ethene, trichloro-	79-01-6	1710	6.1D, 6.3A, 6.4A, 6.6B, 6.7A, 6.9B, 9.1D
Formaldehyde, >5-25% aqueous solution	50-00-0		6.1D, 6.3A, 6.4A, 6.5A, 6.5B, 6.6A, 6.7A, 6.9A, 9.1D, 9.2B, 9.3C

Substance Description	CAS Number	UN Number	Hazard Classification(s)
Formaldehyde, 0.25-5% aqueous solution	50-00-0		6.1E, 6.3A, 6.4A, 6.5A, 6.5B, 6.6A, 6.7A, 6.9A, 9.2B
Hexane, 1,6-diisocyanato-	822-06-0	2281	6.1A, 6.3A, 6.4A, 6.5A, 6.5B, 6.9A, 9.3B
Hydrazine, >10-37% aqueous solution	7803-57-8	3293	6.1C, 6.5B, 6.6A, 6.7B, 6.8B, 6.9A, 8.2C, 8.3A, 9.1A, 9.2D, 9.3A
Hydrazine, >3-10% aqueous solution	7803-57-8	3293	6.1D, 6.3A, 6.4A, 6.5B, 6.6A, 6.7B, 6.8B, 6.9A, 9.1A, 9.2D, 9.3B
Hydrazine, 1-3% aqueous solution	7803-57-8	3293	6.1E, 6.5B, 6.6A, 6.7B, 6.8B, 6.9A, 9.1A, 9.2D, 9.3C
Hydriodic acid, 57-67% aqueous solution	10034-85-2	1787	6.1B, 6.9A, 8.1A, 8.2B, 8.3A, 9.3C
Hydrobromic acid, 47-60% aqueous solution	10035-10-6	1788	6.1B, 6.9A, 8.1A, 8.2B, 8.3A, 9.3C
Hydrochloric acid, >25% aqueous solution	7647-01-0	1789	6.1B, 8.1A, 8.2B, 8.3A, 9.1D, 9.3C
Hydrochloric acid, >10-25% aqueous solution	7647-01-0	1789	6.1D, 8.1A, 8.2B, 8.3A, 9.3C
Hydrochloric acid, >2-10% aqueous solution	7647-01-0	1789	6.1E, 8.1A, 8.2C, 8.3A
Hydrochloric acid, 0.5-2% aqueous solution	7647-01-0		6.1E, 6.3A, 6.4A
Hydrofluoric acid, >60% aqueous solution	7664-39-3	1790	6.1A, 6.9A, 8.1A, 8.2A, 8.3A, 9.1D, 9.3A
Hydrofluoric acid, >7-60% aqueous solution	7664-39-3	1790	6.1B, 6.9A, 8.1A, 8.2B, 8.3A, 9.1D, 9.3A
Hydrofluoric acid, >1-7% aqueous solution	7664-39-3	1790	6.1C, 6.9A, 8.1A, 8.2C, 8.3A, 9.3B
Hydrofluoric acid, >0.1-1% aqueous solution	7664-39-3	1790	6.1D, 6.3A, 6.4A, 6.9A, 8.1A, 9.3B
Hydrofluoric acid, 0.01-0.1% aqueous solution	7664-39-3	1790	6.1E, 6.3B, 6.4A, 6.9A, 8.1A
Iodine (solid)	7553-56-2	1759	6.1D, 6.5B, 6.9B, 8.2C, 8.3A, 9.1A
Methane, dichloro-	75-09-2	1593	6.1D, 6.3A, 6.4A, 6.7B, 6.9B, 9.3C
Methane, isothiocyanato-	556-61-6	2477	3.1C, 6.1B, 6.5B, 6.9A, 8.2B, 8.3A, 9.1A, 9.2C, 9.3B
Naphthenic acids, copper salts	1338-02-9		6.1D, 6.3B, 6.4A, 9.1A, 9.2C, 9.3C
Nitric acid, >10-70% aqueous solution	7697-37-2	2031	6.1D, 6.9B, 8.1A, 8.2B, 8.3A
Nitric acid, 0.5-10% aqueous solution	7697-37-2		6.1E, 6.9B, 8.1A, 8.2C, 8.3A
Pentanedial, (glutaraldehyde)	111-30-8	2810	6.1A, 6.5A, 6.5B, 6.9B, 8.2B, 8.3A, 9.1A, 9.2A, 9.3A
Phenol	108-95-2	1671	6.1B, 6.6A, 6.8B, 6.9A, 8.2B, 8.3A, 9.1D, 9.2D, 9.3B
Phenol, methyl- mixed isomers, (cresol)	1319-77-3	2076	3.1D, 6.1A, 6.9A, 8.2B, 8.3A, 9.1D, 9.3B
Phosphoric acid, >10% aqueous solution	7664-38-2	1805	6.1D, 8.1A, 8.2C, 8.3A, 9.1D, 9.3C
Phosphoric acid, 1-10% aqueous solution	7664-38-2	1805	6.1E, 8.1A, 8.2C, 8.3A, 9.1D

Substance Description	CAS Number	UN Number	Hazard Classification(s)
Potassium hydroxide	1310-58-3	1813	6.1C, 8.1A, 8.2B, 8.3A, 9.1D, 9.3B
Potassium hydroxide, >5% aqueous solution	1310-58-3	1814	6.1D, 8.1A, 8.2B, 8.3A, 9.3B
Potassium hydroxide, >2-5% aqueous solution	1310-58-3	1814	6.1E, 8.1A, 8.2C, 8.3A
Potassium hydroxide, 0.5-2% aqueous solution	1310-58-3		6.1E, 6.3A, 6.4A
Sodium hydroxide	1310-73-2	1823	6.1D, 8.1A, 8.2B, 8.3A, 9.1D, 9.3C
Sodium hydroxide, >5% aqueous solution	1310-73-2	1824	6.1D, 8.1A, 8.2B, 8.3A, 9.1D
Sodium hydroxide, >2-5% aqueous solution	1310-73-2	1824	6.1E, 8.1A, 8.2C, 8.3A
Sodium hydroxide, 0.5-2% aqueous solution	1310-73-2		6.1E, 6.3A, 6.4A
Strychnidin-10-one, 2,3-dimethoxy-, (brucine)	357-57-3	1570	6.1A, 6.3B, 6.4A, 6.9A, 9.1C, 9.3A
Sulfamic acid	5329-14-6	2967	6.1D, 8.1A, 8.2C, 8.3A, 9.1C, 9.3C
Sulphuric acid, >10% aqueous solution	7664-93-9	1830	6.1D, 6.7A, 6.9A, 8.1A, 8.2B, 8.3A, 9.1D
Sulphuric acid, >5-10% aqueous solution	7664-93-9	2796	6.1E, 6.9B, 8.1A, 8.2C, 8.3A, 9.1D
Sulphuric acid, 0.5-5% aqueous solution	7664-93-9		6.1E, 6.3A, 6.4A, 8.1A, 9.1D
Sulphuric acid, fuming	7664-93-9	1831	6.1A, 6.7A, 6.9A, 8.1A, 8.2A, 8.3A, 9.1D
Zinc chloride	7646-85-7	2331	6.1C, 8.1A, 8.2C, 8.3A, 9.1A, 9.3B

Schedule 3**Changes to controls relating to hazardous gases****Control – Hazardous
Substances (Classes 1
to 5 Controls)
Regulations 2001****Changes to Controls****Regulation 8**

This regulation applies to liquefied petroleum gas as if subclause (2) were omitted and the following substituted:

- (2) A person must not carry or convey liquefied petroleum gas on any passenger service vehicle unless the quantity of liquefied petroleum gas is less than or equal to 20 kg.
- (3) A person in charge of a passenger service vehicle used to carry or convey liquefied petroleum gas must ensure that—
 - (a) no more than 20 kg of liquefied petroleum gas is carried or conveyed on the vehicle at any one time; and
 - (b) the liquefied petroleum gas is in 1 or more containers that are stowed in a separate compartment on the vehicle that complies with subclause (4); and
 - (c) no other hazardous substance is stored in the compartment with the liquefied petroleum gas; and
 - (d) the compartment is labelled with a ‘Class 2 - Flammable Gas’ diamond.
- (4) A compartment that is used to convey liquefied petroleum gas must be—
 - (a) adequately ventilated; and
 - (b) able to be accessed only from outside the vehicle; and
 - (c) made of fire-resistant material; and
 - (d) situated in the vehicle so as to provide maximum protection for the liquefied petroleum gas container in the event of an accident.

Regulation 9

This regulation applies as if the heading were omitted and the following substituted:

9. Exclusion for certain substances

This regulation applies to anhydrous ammonia as if, after subclause

(1), the following were inserted:

- (1A) These regulations do not apply to anhydrous ammonia that is contained in equipment that forms part of any other equipment in which anhydrous ammonia is used as a refrigerant.

Regulation 56

This regulation applies to liquefied petroleum gas at refuelling outlets as if the item in table 2 of Schedule 3 of the regulations relating to classification 2.1.1.A were omitted and the following substituted:

2.1.1.A any amount

The regulations apply to liquefied petroleum gas at refuelling outlets as if, in regulation 56(1), the words “subject to subclauses (2), (3), and (4)” were inserted before the words “Class 2, 3, or 4”.

The regulations apply to liquefied petroleum gas at refuelling outlets as if regulation 56(2) were omitted and the following substituted:

- (2) Liquefied petroleum gas at a refuelling outlet may be handled by a person who is not an approved handler if—
- (a) the person has been trained in the hazards associated with the substance and its safe use and handling, including steps to be taken in the event of spillage or other emergency; and
 - (b) an approved handler is available to provide assistance, if necessary, to the person at all times while the substance is being handled by the person.
- (3) A person who is not an approved handler may self service refuel a vehicle with liquefied petroleum gas at a refuelling outlet if—
- (a) the dispensing nozzle of the liquefied petroleum gas stationary container system cannot be operated until it is connected to the vehicle filling point; and
 - (b) the dispensing nozzle cannot be disconnected from the vehicle filling point unless the fill trigger is in the off position; and
 - (c) the liquefied petroleum gas stationary container system is fitted with an emergency shutdown system that complies with section 9.5.14 of AS/NZS 1596; and

- (d) the dispensing unit is clearly identified as such and displays a clear set of filling instructions; and
 - (e) the dispensing hose of the dispensing unit has a self-sealing hose break coupling that complies with section 9.3.3 of AS/NZS 1596; and
 - (f) an approved handler is available to provide assistance, if necessary, to the person at all times while the substance is being handled by the person.
- (4) For the purposes of subclause (3)(c), a system that was installed prior to 1 July 1999 complies with paragraph (a) of section 9.5.14 of AS/NZS 1596 if it can be remotely activated.

Regulation 61

Subclauses (3), (4), and (5) of this regulation do not apply to a vehicle at the dispensing unit of a refuelling outlet if, when fuel is being delivered to the fuel tank of the vehicle—

- (a) the engine of the vehicle is turned off; and
- (b) no source of ignition is brought within 3 metres of the fuel tank of the vehicle.

Regulation 81

This regulation applies to class 2 and class 3.1 hazardous substances as if, at the end of paragraph (f), the expression “.” were omitted and the following substituted:

“; and”

This regulation applies to class 2 and class 3.1 hazardous substances as if, after paragraph (f), the following were inserted:

- (g) the requirements of Schedule 10 (controls relating to the adverse effects of unintended ignition of class 2 and class 3.1 hazardous substances) of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 are complied with.

Regulation 88

This regulation applies to oxygen in a discrete cylinder or tank as if the item in table 2 of Schedule 4 of the regulations relating to classification 5.1.2A were omitted and the following substituted:

5.1.2A 200 m³

This regulation applies to chlorine as if the item in table 2 of Schedule 4 of the regulations relating to classification 5.1.2A were omitted and the following substituted:

5.1.2A 100 kg

**Control – Hazardous
Substances (Classes
6, 8 and 9 Controls)
Regulations 2001**

Changes to Controls

Regulation 4

This regulation applies to anhydrous ammonia as if, at the end of subclause (b), the expression “.” were omitted and the following inserted:

“; or”

This regulation applies to anhydrous ammonia as if after, subclause (b), the following were added:

- (c) in the case of anhydrous ammonia, contained in any equipment that forms part of any other equipment in which anhydrous ammonia is used as a refrigerant.

Regulation 9

This regulation applies to the following hazardous substances:

Carbon monoxide
Carbon oxide sulphide (carbonyl sulphide)
Methanamine (methanamine)
Methanamine, N-methyl-, anhydrous (dimethylamine)
Methanethiol (methyl mercaptan)
Silane, tetrafluoro-
Sulphur dioxide
Sulphuryl fluoride
Trimethylamine, anhydrous

as if regulation 9 were omitted and the following substituted:

9. Substances that must be secured

- (1) This regulation applies to the following hazardous substances:

Carbon monoxide
Carbon oxide sulphide (carbonyl sulphide)
Methanamine (methanamine)
Methanamine, N-methyl-, anhydrous (dimethylamine)
Methanethiol (methyl mercaptan)
Silane, tetrafluoro-
Sulphur dioxide
Sulphuryl fluoride
Trimethylamine, anhydrous

- (2) A hazardous substance to which this regulation applies must, if left unattended, be secured so that a person cannot gain access to the substance unless the person has a key or other device used for operating locks.

This regulation applies to ammonia, >50% aqueous solution, and ammonia, 35-50% aqueous solution, as if regulation 9 were omitted.

This regulation applies to anhydrous ammonia as if the item in Schedule 1 of the regulations relating to classifications 6.1C and 9.1A were omitted and the following substituted:

6.1C 100 kg

9.1A 100 kg

This regulation applies to chlorine, hydrogen sulphide, and nitrosyl chloride as if chlorine, hydrogen sulphide, and nitrosyl chloride do not have a class 9 hazard classification.

Regulation 11 The regulations apply as if regulation 11 were omitted.

Regulation 32 This regulation applies as if subclauses (1) and (2) were omitted.

Control – Hazardous Substances

(Identification)

Regulations 2001

Changes to Controls

Regulation 4 This regulation applies to anhydrous ammonia as if the heading were omitted and the following substituted:

4. Exclusion for certain substances

This regulation applies to anhydrous ammonia as if, after subclause (1) the following was inserted:

- (1A) These regulations do not apply to anhydrous ammonia that is contained in equipment that forms part of any other equipment in which anhydrous ammonia is used as a refrigerant.

**Control – Hazardous
Substances
(Emergency
Management)
Regulations 2001**

Changes to Controls

Regulation 4

This regulation applies to anhydrous ammonia as if the heading were omitted and the following substituted:

4. Exclusion for certain substances

This regulation applies to anhydrous ammonia as if, after subclause (1) the following was inserted:

- (1A) the requirements of these regulations do not apply to anhydrous ammonia that is contained in equipment that forms part of any other equipment in which anhydrous ammonia is used as a refrigerant.

**Control – Hazardous
Substances
(Tracking)**

Regulations 2001

Changes to Controls

Regulations 4 to 6

The regulations apply to the following substances as if regulations 4 to 6 were omitted:

Ammonia, anhydrous
Ammonia, >50% aqueous solution
Ammonia, 35-50% aqueous solution
Borane, trichloro-
Carbon monoxide
Carbon oxide sulphide (carbonyl sulphide)
Ethanamine, anhydrous (ethylamine)
Methanamine (methylamine)
Methanamine, N-methyl-, anhydrous (dimethylamine)
Methanethiol (methyl mercaptan)
Silane, tetrafluoro-
Sulphur dioxide
Sulphuryl fluoride
Trimethylamine, anhydrous

Regulation 7

Subclause (1) of this regulation applies to anhydrous ammonia as if, at the end of paragraph (b), the expression “.” were omitted and with the following substituted:

“; or”

Subclause (1) of this regulation applies to anhydrous ammonia as if after paragraph (b), the following were added:

- (c) anhydrous ammonia that is contained in equipment that forms part of any other equipment in which anhydrous ammonia is used as a refrigerant.

Schedule 4

Changes to controls relating to gases that are not hazardous substances

**Control – Hazardous
Substances
(Compressed Gases)
Regulations 2004**

Changes to Controls

Regulation 3

This regulation applies to compressed gases that are not hazardous substances as if, in the definition of **gas**, paragraph (b) were omitted.

This regulation applies to compressed gases that are not hazardous substances as if the following definitions were inserted in the appropriate order:

AS/NZS 2299.1: 1999 means the standard on *Occupational diving operations - Standard operational practice*

AS 3848.2: 1999 means the standard on *Filling of portable gas cylinders - Filling of portable cylinders for self-contained underwater breathing apparatus (SCUBA) and non-underwater self-contained breathing apparatus (SCBA) - Safe procedures*

BA means breathing apparatus

SCUBA means self-contained underwater breathing apparatus

Regulation 44

This regulation applies to compressed gases that are not hazardous substances as if, in paragraph (f), the expression “.” were omitted and replaced with:

“.”

This regulation applies to compressed gases that are not hazardous substances as if there were added, after paragraph (f), the following paragraph:

- (g) for SCUBA, the operating pressure of the—
 - (i) SCUBA; and
 - (ii) pressure relief device

Regulation 52

This regulation applies to compressed gases that are not hazardous substances as if the table were omitted and the following table substituted:

Type of cylinder	Interval (years)
SCUBA:	
Visual inspections	1
Hydrostatic tests	2
Cylinders that are a part of a self contained breathing apparatus not designed or used for underwater use, other than fibre wrapped composite cylinder	5
Fibre wrapped composite cylinder	3
Fire extinguisher	5
Cylinder with shrunk-on foot rings	2
Cylinder for any of the following gases: Air (except for SCUBA), argon, cyclopropane, ethylene, helium, hydrogen, krypton, neon, nitrogen, nitrous oxide, oxygen, xenon, and mixtures of the above containing not more than 30% by volume of carbon dioxide	10 (up to 40 years of age) then 5 year intervals
All other cylinders	5

New regulation 56A

The regulations apply to compressed gases that are not hazardous substances as if, after regulation 56, the following were inserted:

56A Restriction on charging SCUBA or BA

No person may charge SCUBA or BA with air unless the moisture level in the air complies with—

- (a) AS/NZS 2299.1: 1999; or
- (b) AS 3848.2: 1999; or
- (c) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a) or paragraph (b).

Schedule 5

Changes to controls relating to classes 3, 4 and 5 dangerous goods

**Control – Hazardous
Substances (Classes
6, 8 and 9 Controls)
Regulations 2001**

Changes to Controls

Regulation 9

This regulation applies to the following hazardous substances:

1,2-Ethanediamine, N,N,N',N'-tetramethyl-
1,3-Butadiene, 2-chloro-
1-Decanol
1-Nonanol
1-Pentanol
1-Propanamine
1-Propanamine, 2-methyl-N-(2-methylpropyl)-
1-Propanamine, N-propyl-
1-Propene, 1,3-dichloro-
2,4-Pentanedione
2-Pentanol, 4-methyl-
2-Propanamine
2-Propanethiol, 2-methyl-
2-Propenoic acid, 2-methylpropyl ester
2-Propenoic acid, butyl ester
2-Propenoic acid, ethyl ester
2-Propenoic acid, methyl ester
3-Penten-2-one, 4-methyl-
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-
Acetic acid, ethenyl ester
Barium
Benzenamine
Benzene, ethenyl-
Benzene, ethenylmethyl-
Benzene, methoxy-
Borane, triethyl-
Borate(1-), tetrahydro-, potassium
Borate(1-), tetrahydro-, sodium
Bromic acid, potassium salt
Bromic acid, sodium salt
Cyclohexanone
Cyclopentanol
Disulfide, dimethyl
Ethanamine, 50-70% aqueous solution
Ethanamine, N,N-diethyl-
Ethanamine, N-ethyl-

Ethane, 1,2-dichloro-
Ethanethiol
Ethanol, 2-butoxy-
Ethanol, 2-methoxy-
Ethanol, 2-propoxy-
Formic acid
Hydroperoxide, 1,1-dimethylethyl, 70% aqueous solution
Lead oxide
Methanamine, N,N-dimethyl-, 40-50% aqueous solution
Methanamine, N-methyl-, 40-60% aqueous solution
Morpholine, 4-methyl-
Naphthalene, 1-nitro-
Naphthalene, decahydro-
Nitric acid, lead (2+) salt
Nitric acid, zinc salt
Nitrous acid, 3-methylbutyl ester
Nitrous acid, potassium salt
Nitrous acid, sodium salt
Oxirane, methyl-
Perchloric acid, lead (2+) salt
Propane, 2-nitro-
Propanoic acid, 2-methyl-
Pyridine, 2,4,6-trimethyl-
Pyrrolidine
Silane, chlorotrimethyl-
Silane, dichlorodimethyl-
Silane, trichloromethyl-
Sodium sulfide
Thiophene

as if regulation 9 were omitted and the following substituted:

9. Substances that must be secured

(1) This regulation applies to the following hazardous substances:

1,2-Ethanediamine, N,N,N',N'-tetramethyl-
1,3-Butadiene, 2-chloro-
1-Decanol
1-Nonanol
1-Pentanol
1-Propanamine
1-Propanamine, 2-methyl-N-(2-methylpropyl)-
1-Propanamine, N-propyl-
1-Propene, 1,3-dichloro-
2,4-Pentanedione

2-Pentanol, 4-methyl-
2-Propanamine
2-Propanethiol, 2-methyl-
2-Propenoic acid, 2-methylpropyl ester
2-Propenoic acid, butyl ester
2-Propenoic acid, ethyl ester
2-Propenoic acid, methyl ester
3-Penten-2-one, 4-methyl-
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-
Acetic acid, ethenyl ester
Barium
Benzenamine
Benzene, ethenyl-
Benzene, ethenylmethyl-
Benzene, methoxy-
Borane, triethyl-
Borate(1-), tetrahydro-, potassium
Borate(1-), tetrahydro-, sodium
Bromic acid, potassium salt
Bromic acid, sodium salt
Cyclohexanone
Cyclopentanol
Disulfide, dimethyl
Ethanamine, 50-70% aqueous solution
Ethanamine, N,N-diethyl-
Ethanamine, N-ethyl-
Ethane, 1,2-dichloro-
Ethanethiol
Ethanol, 2-butoxy-
Ethanol, 2-methoxy-
Ethanol, 2-propoxy-
Formic acid
Hydroperoxide, 1,1-dimethylethyl, 70% aqueous solution
Lead oxide
Methanamine, N,N-dimethyl-, 40-50% aqueous solution
Methanamine, N-methyl-, 40-60% aqueous solution
Morpholine, 4-methyl-
Naphthalene, 1-nitro-
Naphthalene, decahydro-
Nitric acid, lead (2+) salt
Nitric acid, zinc salt
Nitrous acid, 3-methylbutyl ester
Nitrous acid, potassium salt
Nitrous acid, sodium salt
Oxirane, methyl-
Perchloric acid, lead (2+) salt
Propane, 2-nitro-

Propanoic acid, 2-methyl-
Pyridine, 2,4,6-trimethyl-
Pyrrolidine
Silane, chlorotrimethyl-
Silane, dichlorodimethyl-
Silane, trichloromethyl-
Sodium sulfide
Thiophene

- (2) A hazardous substance to which this regulation applies must, if left unattended, be secured so that a person cannot gain access to the substance unless the person has a key or other device used for operating locks.

The regulations apply to the following hazardous substances as if regulation 9 were omitted:

1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt
1,5-Cyclooctadiene
1,6-Octadiene, 7-methyl-3-methylene-
2-Butanone, oxime
2-Cyclohexen-1-one, 3,5,5-trimethyl-
2-Propanethiol
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester
Benzene, butyl-
Benzene, chloro-
Benzene, diethyl-
Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-methylene-
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-
Butanal
Butanoic acid, pentyl ester
cis, cis 1,3-Cyclooctadiene
Cyclohexanone peroxide, 30-60% in dibutyl phthalate 30-60%, ethyl acetate 10-30%
Cyclohexene, 1-methyl-4-(1-methylethenyl)-
Cyclohexene, 1-methyl-4-(1-methylethylidene)-
Decane
Ethaneperoxoic acid, <5% in acetic acid and hydrogen peroxide
Hexaneperoxoic acid, 3,5,5-trimethyl-, 1,1-dimethylethyl ester
Hypochlorous acid, calcium salt (dry), >30% available chlorine
Hypochlorous acid, calcium salt (dry), 10-30% available chlorine
Naphthenic acids, copper salts (flammable solution; flashpoint 23-60°C)

Nitric acid, copper (2+) salt
Nitric acid, silver (1+) salt
Nitric acid, strontium salt
Nonane
Octane
Pentane, 2,2,4-trimethyl-
Permanganic acid, potassium salt
Permanganic acid, sodium salt
Silver oxide
Zinc ashes
Zinc powder pyrophoric
Zinc powder/dust, PG I
Zinc powder/dust, PG II
Zinc powder/dust, PG III

This regulation applies to the following substances as if each substance does not have a class 9 hazard classification:

1-Pentanamine, N-pentyl-
1-Propanethiol
2-Propenenitrile
2-Propenoic acid, 2-methyl-, 2-propenyl ester
Acetic acid, chloro-, ethyl ester
Aluminium phosphide
Acetonitrile
Benzenecarboperoxoic acid, 1,1-dimethylethyl ester
Chlorous acid, sodium salt
Chromic acid, diammonium salt
Chromic acid, dipotassium salt
Chromic acid, disodium salt
Chromic acid, disodium salt, dihydrate
Chromium oxide
Ethaneperoxoic acid, 35-43% in acetic acid and hydrogen peroxide
Formaldehyde, >35% aqueous solution with 7-10% methanol
Formaldehyde, >25% aqueous solution, containing not more than 5% methanol
Hydrazine, anhydrous
Hydrazine hydrate, or >37-64% aqueous solution
Naphthalene
Nitric acid, cadmium salt
Oxirane, chloromethyl-
Phenol, 2,4-dinitro- (wetted with not less than 15% water by mass)
Phenol, 2,5-dinitro- (wetted with not less than 15% water by mass)
Phenol, 2,6-dinitro- (wetted with not less than 15% water by mass)
Phosphorus, white, yellow, dry or in solution
Piperidine

Propanenitrile, 2-methyl-
Sodium hydrosulphide
Zinc phosphide

- Regulation 10 The regulations apply to methylated spirits as if regulation 10 were omitted.
- Regulation 11 The regulations apply as if regulation 11 were omitted.
- Regulation 32 This regulation applies as if subclauses (1) and (2) were omitted.

**Control – Hazardous
Substances
(Packaging)
Regulations 2001**

Changes to Controls

- Regulation 19 This regulation applies as if paragraphs (b) and (c) of subclause (1) were omitted and the following substituted:

- (b) for a substance with a hazard classification of 6.1B must comply with the tests set out in Schedule 2:
- (c) for a substance with a hazard classification of 6.1C must comply with the tests set out in Schedule 3.

Subclause (1) of this regulation applies to formaldehyde, >35% aqueous solution with 7-10% methanol, and formaldehyde, >25% aqueous solution, containing not more than 5% methanol as if, at the end of paragraph (b), the expression “Schedule 2” were omitted and the following substituted:

“Schedule 3”

**Control – Hazardous
Substances
(Tracking)
Regulations 2001**

Changes to Controls

- Regulations 4 to 6 The regulations apply to the following substances as if regulations 4 to 6 were omitted:

1,2-Ethanediamine, N,N,N',N'-tetramethyl-
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt
1,3-Butadiene, 2-chloro-
1,5-Cyclooctadiene
1,6-Octadiene, 7-methyl-3-methylene-
1-Decanol

1-Nonanol
1-Pentanol
1-Propanamine
1-Propanamine, 2-methyl-N-(2-methylpropyl)-
1-Propanamine, N-propyl-
1-Propene, 1,3-dichloro-
2,4-Pentanedione
2-Butanone, oxime
2-Cyclohexen-1-one, 3,5,5-trimethyl-
2-Pentanol, 4-methyl-
2-Propanethiol
2-Propanethiol, 2-methyl-
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester
2-Propenoic acid, 2-methylpropyl ester
2-Propenoic acid, butyl ester
2-Propenoic acid, ethyl ester
2-Propenoic acid, methyl ester
3-Penten-2-one, 4-methyl-
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-
Acetic acid, ethenyl ester
Barium
Benzenamine
Benzene, butyl-
Benzene, chloro-
Benzene, diethyl-
Benzene, ethenyl-
Benzene, ethenylmethyl-
Benzene, methoxy-
Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-methylene-
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-
Bromic acid, potassium salt
Bromic acid, sodium salt
Butanal
Butanoic acid, pentyl ester
cis, cis 1,3-Cyclooctadiene
Cyclohexanone
Cyclohexanone peroxide, 30-60% in dibutyl phthalate 30-60%, ethyl acetate 10-30%
Cyclohexene, 1-methyl-4-(1-methylethenyl)-
Cyclohexene, 1-methyl-4-(1-methylethylidene)-
Cyclopentanol
Decane
Disulfide, dimethyl
Ethanamine, 50-70% aqueous solution
Ethanamine, N,N-diethyl-
Ethanamine, N-ethyl-

Ethane, 1,2-dichloro-
Ethaneperoxoic acid, <5% in acetic acid and hydrogen peroxide
Ethanol, 2-butoxy-
Ethanol, 2-methoxy-
Ethanol, 2-propoxy-
Formic acid
Hexaneperoxoic acid, 3,5,5-trimethyl-, 1,1-dimethylethyl ester
Hydroperoxide, 1,1-dimethylethyl, 70% aqueous solution
Hypochlorous acid, calcium salt (dry), >30% available chlorine
Hypochlorous acid, calcium salt (dry), 10-30% available chlorine
Lead oxide
Methanamine, N-methyl-, 40-60% aqueous solution
Morpholine, 4-methyl-
Naphthalene
Naphthalene, 1-nitro-
Naphthalene, decahydro-
Naphthenic acids, copper salts (flammable solution; flashpoint 23-60°C)
Nitric acid, copper (2+) salt
Nitric acid, lead (2+) salt
Nitric acid, silver (1+) salt
Nitric acid, strontium salt
Nitric acid, zinc salt
Nitrous acid, 3-methylbutyl ester
Nitrous acid, potassium salt
Nitrous acid, sodium salt
Nonane
Octane
Oxirane, chloromethyl-
Pentane, 2,2,4-trimethyl-
Perchloric acid, lead (2+) salt
Permanganic acid, potassium salt
Permanganic acid, sodium salt
Propane, 2-nitro-
Propanoic acid, 2-methyl-
Pyridine, 2,4,6-trimethyl-
Pyrrolidine
Silane, chlorotrimethyl-
Silane, dichlorodimethyl-
Silane, trichloromethyl-
Silver oxide
Sodium sulfide
Thiophene
Zinc ashes
Zinc powder/dust, PG I
Zinc powder/dust, PG II
Zinc powder/dust, PG III

**Control – Hazardous
Substances
(Emergency
Management)
Regulations 2001**

Changes to Controls

Regulation 36

This regulation applies as if there were added, after subclause (3), the following subclauses:

- (4) For the purposes of this regulation and regulations 37 to 40, any hazardous substance contained in pipework that is installed and operated so as to manage any loss of containment in the pipework—
 - (a) is not to be taken into account in determining whether a place is required to have a secondary containment system; and
 - (b) is not required to be located in a secondary containment system.
- (5) In this clause, **pipework**—
 - (a) means piping that—
 - (i) is connected to a stationary container; and
 - (ii) is used to transfer a hazardous substance into or out of the stationary container; and
 - (b) includes a process pipeline or a transfer line.

Schedule 6**Changes to controls relating to petrol and petroleum products****Control – Hazardous
Substances (Classes 1
to 5 Controls)****Regulations 2001****Changes to Controls**

Regulation 55

This regulation applies to petrol and aviation gasoline and racing gasoline as if the petrol aviation gasoline or racing gasoline (as the case may be) is subject to the tracking provisions of the Hazardous Substances (Tracking) Regulations 2001.

The regulations apply to low flashpoint diesel as if regulation 55 were omitted.

Regulation 56

Subclause (1) of this regulation applies to petrol and aviation gasoline and racing gasoline as if the item in table 2 of Schedule 3 of the regulations relating to classification 3.1A were omitted and replaced with the following:

3.1A 100 L

The regulations apply to petrol and aviation gasoline and racing gasoline as if, in regulation 56(1), the words “subject to subclause (2),” were inserted before the words “Class 2, 3, or 4”.

This regulation applies to petrol and aviation gasoline and racing gasoline as if regulation 56(2) were omitted and the following substituted:

- (2) Petrol and aviation gasoline and racing gasoline required to be under the personal control of an approved handler may be handled by a person who is not an approved handler if—
 - (a) where the petrol, aviation gasoline, or racing gasoline is being handled,—
 - (i) the person has been trained in the hazards associated with the substance and its safe use and handling, including steps to be taken in the event of spillage or other emergency; and

- (ii) an approved handler is available to provide assistance, if necessary, to the person at all times while the substance is being handled by the person; or
- (b) at a refuelling outlet—
 - (i) the person is self service refuelling a vehicle, aircraft or ship with petrol or aviation gasoline or racing gasoline; or
 - (ii) the person is self service filling a container with less than 250 litres of petrol or aviation gasoline or racing gasoline; and
 - (iii) an approved handler is available to provide assistance, if necessary, to the person at all times while the substance is being handled by the person.

Regulation 58 The regulations apply to low flashpoint diesel as if regulation 58 were omitted.

Regulation 61 Subclauses (3), (4), and (5) do not apply to a vehicle at the dispensing unit of a refuelling outlet if, when petrol, or aviation gasoline, or racing gasoline is being delivered to the fuel tank of the vehicle,—

- (1) the engine of the vehicle is turned off; and
- (2) no source of ignition is brought within 3 metres of the fuel tank of the vehicle.

Regulation 77 This regulation applies to petrol and aviation gasoline and racing gasoline as if the petrol, aviation gasoline, or racing gasoline (as the case may be) is subject to the tracking provisions of the Hazardous Substances (Tracking) Regulations 2001.

The regulations apply to low flashpoint diesel as if regulation 77 were omitted.

Regulation 81

This regulation does not apply to a person in charge of a hazardous substance location that is a farm of not less than 4 hectares, where petrol, aviation gasoline, or racing gasoline are stored in total quantities of less than 2,000 litres, if—

- (a) the petrol, aviation gasoline, or racing gasoline—
 - (i) is stored in one or more secure containers, each individual container with a capacity of less than 250 litres; and
 - (ii) the container or containers comply with regulation 11 and Schedule 2 of the Hazardous Substances (Packaging) Regulations 2001; and
 - (iii) is situated at a distance not less than 15 metres from any area of high intensity land use or area of regular habitation; and
 - (iv) is situated either in the open or in a well ventilated building; and
 - (v) is in a compound or located so that any spillage of the petrol, aviation gasoline, or racing gasoline will not endanger any building, or flow into any stream, lake or natural water.
- (b) the petrol, aviation gasoline, or racing gasoline is—
 - (i) stored in an above ground stationary tank that—
 - (1) complies with the Stationary Container Controls in Schedule 8 of this notice; and
 - (2) is situated—
 - (A) not less than 20 metres from any area of high-intensity land use or area of regular habitation; and
 - (B) 6 metres from any combustible materials; and
 - (ii) is in a compound or located so that any spillage of the petrol, aviation gasoline, or racing gasoline will not endanger any building, or flow into any stream, lake or natural water.

Regulation 83 This regulation applies to petrol and aviation gasoline and racing gasoline as if the petrol, aviation gasoline, or racing gasoline (as the case may be) is subject to the tracking provisions of the Hazardous Substances (Tracking) Regulations 2001.

The regulations apply to low flashpoint diesel as if regulation 83 were omitted.

**Control – Hazardous
Substance (Classes 6,
8 and 9 Controls)
Regulations 2001**

Changes to Controls

Regulation 10 The regulations apply to petrol as if regulation 10 were omitted.

Regulation 11 The regulations apply to petrol and petroleum products other than petrol and aviation gasoline and racing gasoline, as if regulation 11 were omitted.

Regulation 32 This regulation applies to petrol and petroleum products other than petrol and aviation gasoline and racing gasoline, as if subclauses (1) and (2) were omitted.

**Control – Hazardous
Substances
(Identification)
Regulations 2001**

Changes to Controls

Regulation 37

This regulation applies to petrol and aviation gasoline and racing gasoline as if the item in Schedule 2 of the regulations relating to classification 3.1A were omitted and the following substituted:

3.1A 5 L

Regulation 38

This regulation applies to petrol and aviation gasoline and racing gasoline as if the item in Schedule 2 of the regulations relating to classification 3.1A were omitted and the following substituted:

3.1A 5 L

Regulation 51

This regulation applies to petrol and aviation gasoline and racing gasoline as if the item in Schedule 3 of the regulations relating to classification 3.1A were omitted and the following substituted:

3.1A 250 L

Regulation 52

Subclause (1) of this regulation applies to any place where no more than 2,000 litres of petrol, aviation gasoline, or racing gasoline is located for use on a farm (being a farm of not less than 4 hectares in area) as if the words “, and every vehicular and pedestrian access to land where the building is located,” were omitted.

Regulation 53

The regulations apply as if regulation 53 were omitted.

**Control – Hazardous
Substances (Tank
Wagons and
Transportable
Containers)
Regulations 2004**

Changes to Controls

The regulations apply to cutback bitumen as if, after regulation 4, the following were inserted:

4A Application of regulations to cutback bitumen

These regulations do not apply to cutback bitumen if the bitumen is managed in accordance with a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements of these regulations.

**Control – Hazardous
Substances**

(Packaging)

Regulations 2001

Changes to Controls

Regulation 9	This regulation applies to petrol and aviation gasoline and racing gasoline as if petrol and aviation gasoline and racing gasoline each have a hazard classification of 3.1B.
Regulation 11	This regulation applies to petrol and aviation gasoline and racing gasoline as if petrol and aviation gasoline and racing gasoline each have a hazard classification of 3.1B.
Regulation 19	This regulation applies to petrol as if subclause (1) were omitted.
Regulation 21	The regulations apply to petrol as if regulation 21 were omitted.

**Control – Hazardous
Substances (Disposal)**

Regulations 2001

Changes to Controls

Regulation 11	Subclause (1) of this regulation applies to petrol and aviation gasoline and racing gasoline as if the item in Schedule 1 of the regulations relating to classification 3.1A were omitted and the following substituted: 3.1A 1 L
Regulation 13	Subclause (1) of this regulation applies to petrol and aviation gasoline and racing gasoline as if the item in Schedule 2 of the regulations relating to classification 3.1A were omitted and the following substituted: 3.1A 5 L

**Control – Hazardous
Substances**

**(Emergency
Management)**

Regulations 2001

Changes to Controls

Regulation 6	This regulation applies to petrol and aviation gasoline and racing gasoline as if the item in Schedule 1 of the regulations relating to classification 3.1A were omitted and the following substituted: 3.1A 1 L
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- Regulation 7 This regulation applies to petrol and aviation gasoline and racing gasoline as if the item in Schedule 1 of the regulations relating to classification 3.1A were omitted and the following substituted:
- 3.1A 1 L
- Regulation 12 This regulation applies to a person selling or supplying to another person petrol, aviation gasoline, or racing gasoline as if the item in Schedule 2 of the regulations relating to classification 3.1A were omitted and the following substituted:
- 3.1A 5 L
- Regulation 14 This regulation applies to a place of work where there is held in it petrol, aviation gasoline, or racing gasoline as if the item in Schedule 2 of the regulations relating to classification 3.1A were omitted and the following substituted:
- 3.1A 5 L
- Regulation 25 This regulation applies to a place where there is held in it petrol, aviation gasoline and racing gasoline as if the item in Schedule 4 of the regulations relating to classification 3.1A were omitted and the following substituted:
- 3.1A 1,000 L
- Regulation 36 This regulation applies as if there were added, after subclause (3), the following subclauses:
- (4) For the purposes of this regulation and regulations 37 to 40, any hazardous substance contained in pipework that is installed and operated so as to manage any loss of containment in the pipework—
- (a) is not to be taken into account in determining whether a place is required to have a secondary containment system; and
- (b) is not required to be located in a secondary containment system.
- (5) In this clause, **pipework**—
- (a) means piping that—
- (i) is connected to a stationary container; and
- (ii) is used to transfer a hazardous substance into or out of the stationary container; and
- (b) includes a process pipeline or a transfer line.

Regulation 42

Subclause (1) of this regulation applies to a place where there is held any petrol, aviation gasoline, or racing gasoline as if the item in Schedule 5 of the regulations relating to classification 3.1A were omitted and the following substituted:

3.1A 250 L Liquids

**Control – Hazardous
Substances**

(Tracking)

Regulations 2001

Changes to Controls

Regulations 4 to 6

The regulations apply to petrol and aviation gasoline and racing gasoline as if regulations 4 to 6 were omitted.

Schedule 7**Changes to controls relating to scheduled toxic substances****Control – Hazardous
Substances (Classes 6,
8 and 9 Controls)
Regulations 2001****Changes to Controls**

Regulation 9

The regulations apply to the following substances:

1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-
tris(oxiranylmethyl)-, (triglycidalisocyanurate)
2-Propenoic acid, 2-methyl- (stabilized), (methacrylic acid)
2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester,
(dimethylaminoethyl methacrylate)
Formaldehyde, 0.25-5% aqueous solution
Hydrazine, >10-37% aqueous solution
Hydriodic acid, 57-67% aqueous solution
Hydrobromic acid, 47-60% aqueous solution
Hydrochloric acid, >25% aqueous solution
Potassium hydroxide
Sulphuric acid, >10% aqueous solution
Zinc chloride

as if regulation 9 were omitted and the following inserted:

Substances that must be secured

- (1) This regulation applies to the following hazardous substances:

1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-
tris(oxiranylmethyl)-, (triglycidalisocyanurate)
2-Propenoic acid, 2-methyl- (stabilized), (methacrylic acid)
2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester,
(dimethylaminoethyl methacrylate)
Formaldehyde, 0.25-5% aqueous solution
Hydrazine, >10-37% aqueous solution
Hydriodic acid, 57-67% aqueous solution
Hydrobromic acid, 47-60% aqueous solution
Hydrochloric acid, >25% aqueous solution
Potassium hydroxide
Sulphuric acid, >10% aqueous solution
Zinc chloride

- (2) A hazardous substance to which this regulation applies must, if left unattended, be secured so that a person cannot gain access to the substance unless the person has a key or other device used for operating locks.

The regulations apply to the following substances as if regulation 9 were omitted:

Acridine

Ammonia, >10-35% aqueous solution

Ethane, 1,1,1-trichloro-

Hydrazine, >3-10% aqueous solution

Hydrazine, 1-3% aqueous solution

Iodine (solid)

Naphthenic acids, copper salts

This regulation applies to the following substances as if each substance does not have a class 9 hazard classification:

Cadmium

Cyclohexanamine

Ethene, tetrachloro-, (perchloroethylene)

Hydrofluoric acid, >60% aqueous solution

Hydrofluoric acid, >7-60% aqueous solution

Methane, isothiocyanato-

Pentanedial, (glutaraldehyde)

Regulation 11 The regulations apply as if regulation 11 were omitted.

Regulation 32 This regulation applies as if subclauses (1) and (2) were omitted.

**Control – Hazardous
Substances
(Identification)**

Regulations 2001

Changes to Controls

Regulation 51 This regulation applies to ethane, tetrachloro, (perchloroethylene) as if the item in Schedule 3 of the regulations relating to classification 9.1A were omitted and the following substituted:

9.1A 1,000 L

**Control – Hazardous
Substances****(Packaging)****Regulations 2001****Changes to Controls**

Regulation 19

This regulation applies to disulfurous acid, disodium salt (sodium metabisulphite) as if subclause (1) were omitted.

Subclause (1) of this regulation applies to the following substances:

Benzene, 2,4-diisocyanato-1-methyl-, (toluene diisocyanate)
Hexane, 1,6-diisocyanato-
Pentanedial, (glutaraldehyde)
Phenol, methyl- mixed isomers, (cresol)

as if, at the end of paragraph (a), the expression “Schedule 1” were omitted and the following substituted:

“Schedule 2”

Subclause (1) of this regulation applies to the following substances:

1,2-Ethanediol, (ethylene glycol)
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-
tris(oxiranylmethyl)-, (triglycidalisocyanurate)
Ethene, tetrachloro-, (perchloroethylene)
Ethene, trichloro-
Formaldehyde, >5-25% aqueous solution
Formaldehyde, 0.25-5% aqueous solution
Hydrazine, >10-37% aqueous solution
Hydrazine, >3-10% aqueous solution
Hydrazine, 1-3% aqueous solution

as if, at the end of paragraph (b), the expression “Schedule 2” were omitted and the following substituted:

“Schedule 3”

Regulation 20

The regulations apply to disulfurous acid, disodium salt, (sodium metabisulphite) as if subclause 3 were omitted.

Regulation 21

The regulations apply to disulfurous acid, disodium salt, (sodium metabisulphite) as if regulation 21 were omitted.

**Control – Hazardous
Substances (Tracking)
Regulations 2001**

Changes to Controls

Regulations 4 to 6

The regulations apply to the following substances as if regulations 4 to 6 were omitted:

1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-
tris(oxiranylmethyl)-, (triglycidalisocyanurate)
2-Propenoic acid, 2-methyl- (stabilized), (methacrylic acid)
2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester,
(dimethylaminoethyl methacrylate)
Acridine
Ammonia, >10-35% aqueous solution
Ethane, 1,1,1-trichloro-
Ethene, tetrachloro-, (perchloroethylene)
Hydrazine, >10-37% aqueous solution
Hydrazine, >3-10% aqueous solution
Hydrazine, 1-3% aqueous solution
Hydriodic acid, 57-67% aqueous solution
Hydrobromic acid, 47-60% aqueous solution
Hydrochloric acid, >25% aqueous solution
Iodine (solid)
Naphthenic acids, copper salts
Potassium hydroxide
Zinc chloride

**Control – Hazardous
Substances
(Emergency
Management)
Regulations 2001**

Changes to Controls

Regulation 36

This regulation applies as if there were added, after subclause (3), the following subclauses:

- (4) For the purposes of this regulation and regulations 37 to 40, any hazardous substance contained in pipework that is installed and operated so as to manage any loss of containment in the pipework—
 - (a) is not to be taken into account in determining whether a place is required to have a secondary containment system; and
 - (b) is not required to be located in a secondary containment system.
- (5) In this clause, **pipework**—
 - (a) means piping that—
 - (i) is connected to a stationary container; and
 - (ii) is used to transfer a hazardous substance into or out of the stationary container; and
 - (b) includes a process pipeline or a transfer line.

Schedule 8
Controls for stationary container systems
Part 1
Preliminary provisions

1 Application of controls

- (1) This Schedule applies to every stationary container system that contains, or is intended to contain a hazardous substance described in Schedules 1 and 2.
- (2) Despite subclause (1), this Schedule does not apply to—
 - (a) a stationary tank, other than a stationary tank to which Part 13 applies, with a volume less than 250 litres; or
 - (b) a process container, if that process container—
 - (i) is required to comply with the Health and Safety in Employment (Pressure Equipment, Cranes and Passenger Ropeways) Regulations 1999; and
 - (ii) is—
 - (A) used to contain a class 2.1.1, or class 3.1A, or class 3.1B, or class 3.1C hazardous substance; and
 - (B) is constructed of a fire-resisting material; or
 - (c) a stationary container system that is only intended to contain a hazardous substance that is—
 - (i) a solid; or
 - (ii) a class 6.1E, or class 6.3A, or class 6.3B, or class 6.4A, or class 9.3, or class 9.4 hazardous substance, or a substance with any combination of these classifications, that does not have any other hazard classification; or
 - (d) a stationary container that forms an integral part of a refrigerating unit.
- (3) This Schedule applies to a stationary container system—
 - (a) from each point where a hazardous substance enters the stationary container system; and
 - (b) up to each point where a hazardous substance—
 - (i) enters a distribution system that is subject to the Gas Act 1992; or
 - (ii) enters a pipeline that is subject to the Health and Safety in Employment (Pipelines) Regulations 1999; or
 - (iii) enters another container to which controls under the Act apply; or

- (iv) in the case of a substance that is used as the motive power for, or to control, a vehicle, ship, or aircraft, enters the fuel system, electrical system, or control system of the vehicle, ship, or aircraft; or
- (v) enters a vehicle, ship, or aircraft used to transport the hazardous substance if the vehicle, ship, or aircraft is under the jurisdiction of the Land Transport Rules, Maritime Rules, or Civil Aviation Rules, as the case may be.

2 Interpretation

In this Schedule, unless the context otherwise requires—

above ground stationary tank means a stationary tank that is—

- (a) fixed to or resting on the ground; or
- (b) fixed or attached to a structure that is fixed to or resting on the ground

Act means the Hazardous Substances and New Organisms Act 1996

AIP refers to the Australian Institute of Petroleum

AIP CP26: 1995 means the *Code of Practice, Design and Operation of Low Pressure Liquid Petroleum Pipelines*

alteration means any change to the design or location of a stationary container system, and—

- (a) includes—
 - (i) the addition or removal of 1 or more elements of the stationary container system; and
 - (ii) a change to the physical dimensions or configuration of the stationary tank or process container; and
 - (iii) any reassembling of a stationary tank or process container that has been dismantled; but
- (b) does not include repair or maintenance

API refers to the American Petroleum Institute

API 6FA: 1999 means the document entitled *Specification for Fire Test for Valves*

API 570 means the document entitled *Piping Inspection Code: Inspection, Repair Alteration, and Re-rating of In-Service Piping Systems*

API 607 4th Edition means the document entitled *Fire Test for Soft-Seated Quarter Turn Valves*

API 620: 2002 means the document entitled *Design and Construction of Large, Welded, Low-Pressure Storage Tanks*

API 653 means the document entitled *Tank Inspection, Repair, Alteration*

API 2000 means the document entitled *Venting Atmospheric and Low-Pressure Storage Tanks: Non-refrigerated and Refrigerated*

API 2610 means the document entitled *Design, Construction, Operation, Maintenance, and Inspection of Tank and Terminal Facilities*

area of high intensity land use—

- (a) includes—
 - (i) an area of regular habitation; and
 - (ii) a structure made of or containing combustible materials that would sustain a significant fire; and
 - (iii) a high density traffic route; but
- (b) does not include a small office constructed of non-combustible materials associated with a hazardous substance location that is used by persons authorised to be at the location by the person in charge of that location

area of low intensity land use—

- (a) includes—
 - (i) an area where any person may be legally present occasionally; and
 - (ii) a public park or reserve; and
 - (iii) a traffic route of low or medium traffic density; but
- (b) does not include an area of regular habitation

area of regular habitation has the meaning given to it by regulation 3 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

AS refers to the Australian Standard

AS 1345 means the standard on *Identification of the Contents of Pipes, Conduits and Ducts*

AS 1690: 1975 means the standard on *Rules for the Safe Design, Construction and Performance of Domestic Oil-Fired Appliances (known as the SAA Domestic Oil-Fired Appliances Safe Design Code*

AS 1692 means the standard on *Tanks for Flammable and Combustible Liquids*

AS 1940 means the standard on *Chemical Storage and Transport: The Storage and Handling of Flammable and Combustible Liquids*

AS 2229.1-1998 means the standard on *Electrical Equipment for Explosive Atmospheres – Electrical Systems of Dispensing Equipment – Flammable Liquid Dispensing Equipment*

AS 2229.2-1998 means the standard on *Electrical Equipment for Explosive Atmospheres – Electrical Systems of Dispensing Equipment – Liquefied Petroleum Gas Dispensing Equipment*

AS 2634 means the standard on *Chemical Plant Equipment made from Glass-fibre Reinforced Plastics (GRP) based on Thermosetting Resins*

AS 3780 means the standard on *The Storage and Handling of Corrosive Substances*

AS 4326 means the standard on *The Storage and Handling of Oxidising Agents*

ASME refers to the American Society of Mechanical Engineering

ASME B31.3 means the document entitled *Chemical Plant and Petroleum Refinery Piping*

ASME B31.4 means the document entitled *Pipeline Transport Systems for Liquid Hydrocarbons and Other Liquids*

AS/NZS refers to the Joint Australian and New Zealand Standard

AS/NZS 1596 means the standard on *The Storage and Handling of LP Gas*

AS/NZS 2885.1: 1997 means the standard on *Pipelines – Gas and Liquid Petroleum – Operation and Maintenance*

AS/NZS 2885.3: 1997 means the standard on *Pipelines – Gas and Liquid Petroleum – Operation and Maintenance*

AS/NZS 4452 means the standard on *The Storage and Handling of Toxic Substances*

ASTM refers to the American Society for Testing and Materials

ASTM D4021-81 means the standard on *Glass Fibre Reinforced Polyester Underground Petroleum Storage Tanks*

Authority means the Environmental Risk Management Authority established under section 14 of the Act

below ground stationary tank means a tank that is situated below the surface of the ground, and includes—

- (a) a tank over which ground has been raised to provide cover for the tank; and
- (b) a tank covered by material other than ground

BS refers to the British Standard

BS 4994 means the standard on *Specification for Design and Construction of Vessels and Tanks in Reinforced Plastics*

BS 6755.2 means the standard on *Testing of Valves – Part 2: Specification for Fire-Type Testing Requirements – Incorporates Amendments 1, 2*

BS EN 267: 1999 means the standard on *Forced Draught Oil Burners. Definitions, Requirements, Testing, Marking*

BS EN 12285.1: 2003 means the standard on *Workshop Fabricated Steel Tanks Horizontal Cylindrical Single Skin and Double Skin Tanks for the Underground Storage of Flammable and Non-Flammable Water Polluting Liquids*

change in service, in relation to a stationary container system, means a change of use of the stationary container system to contain 1 or more hazardous substances—

- (a) that is or are different from the hazardous substances that the stationary container system was designed or certified to contain; or
- (b) at 1 or more pressures or temperatures, or both, that is or are different from the pressures or temperatures at which the stationary container system was designed or certified to contain hazardous substances

compatible, in relation to a hazardous substance, means that the hazardous substance—

- (a) is chemically inert if brought into contact with another hazardous substance for the range of temperatures and pressures that the mixture is exposed to during its life cycle; or
- (b) if it is chemically reactive when brought into contact with another hazardous substance, does not—
 - (i) cause combustion; or
 - (ii) generate an explosion; or
 - (iii) generate a new substance of a different class, subclass, or category

compound, in relation to the storage of a hazardous substance, means a basin, pit, excavation, hollow, or enclosure that—

- (a) is constructed of concrete, brick, clay, earth, or similar incombustible material; and
- (b) is of such a nature and construction that it will effectively retain a hazardous substance that is a liquid if the hazardous substance leaks or flows out of its container

compressed gas container has the meaning given to it by regulation 3 of the Hazardous Substances (Compressed Gases) Regulations 2004

controlled zone has the meaning given to it by regulation 3 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

dispenser includes a pump approved under section 214 of the Act

distribution system has the meaning given to it by section 2(1) of the Gas Act 1992

EEMUA 159 means Publication No. 159 entitled *Users Guide to the Maintenance and Inspection of Above-ground Vertical Cylindrical Steel Storage Tanks*, published by the Engineering Equipment and Materials Users Association

equipment means equipment that—

- (a) is part of a container or pipework (for example, a burner, or a vaporiser or vent condenser for changing the state of a substance from liquid to gas or from gas to liquid); or
- (b) is used to fill or empty a tank (for example, a dispenser)

fitting means any part of a stationary container system that connects the stationary tank or process container with its associated pipework to ensure that hazardous substances passing into or out of the stationary tank or process container are contained and pass safely (for example, elbows, tees, valves, pressure relief equipment, and measuring instruments)

gas has the meaning given to it by regulation 3 of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

hazard classification means 1 of the classes referred to in regulation 4 of the Hazardous Substances (Classification) Regulations 2001

hazardous substance includes a compressed gas

high pressure liquefiable gas has the meaning given to it by regulation 3 of the Hazardous Substances (Compressed Gases) Regulations 2004

ignition source has the meaning given to it by regulation 3 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

liquefiable gas has the meaning given to it by regulation 3 of the Hazardous Substances (Compressed Gases) Regulations 2004

liquid has the meaning given to it by regulation 3 of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

low pressure liquefiable gas has the meaning given to it by regulation 3 of the Hazardous Substances (Compressed Gases) Regulations 2004

maintenance means the servicing of any component of a stationary container system to ensure that it continues to perform in accordance with the specifications to which it was designed

NZS refers to the New Zealand Standard published by the Standards Association of New Zealand

NZS 4203: 1992 means the standard on *General Structural Design and Design Loadings for Buildings*

NZS 6109.1: 1998 means the standard on *Flammable Liquids Dispensing Equipment*

NZS 6109.2: 1998 means the standard on *Liquefied Petroleum Gas Dispensing Equipment*

NZS/API refers to the New Zealand Standard/American Petroleum Institute

NZS/API 650 refers to the standard on *Welded Steel Tanks for Oil Storage*

NZS/AS refers to the New Zealand Standard/Australian Standard

NZS/AS 1768 means the standard on *Lightning Protection*

NZS/BS refers to the New Zealand Standard/British Standard

NZS/BS 2654 means the standard on *Specification for Manufacture of Vertical Steel Welded Non-Refrigerated Storage Tanks with Butt-Welded Shells for the Petroleum Industry*

permanent gas has the meaning given to it by regulation 3 of the Hazardous Substance (Compressed Gases) Regulations 2004

person in charge, in relation to a stationary container system, means—

- (a) the owner, lessee, or sublessee, of the stationary container system; or

- (b) any other person who, at the relevant time, is in effective control or possession of the stationary container system

pipeline has the meaning given to it by regulation 2 of the Health and Safety in Employment (Pipelines) Regulations 1999

pipework—

- (a) means **piping** that—
 - (i) is connected to a stationary tank or process container; and
 - (ii) is used to transfer a hazardous substance into or out of the tank or container; and
- (b) includes a process pipeline and a transfer line

process container means a stationary container that contains or is intended to contain a hazardous substance in the course of manufacture or use of the hazardous substance (for example, a mixing container, reaction vessel, distillation column, drier, or dip tank)

process pipeline—

- (a) means **pipework** that—
 - (i) is connected to a process container; and
 - (ii) is used to transfer a hazardous substance into or out of the container; and
- (b) includes a fuel line and a lubricating line

repair means—

- (a) the restoration of any part of a stationary container system to its design specifications; but
- (b) does not include alterations or maintenance; and
- (c) in relation to a stationary tank or process container, includes—
 - (i) removal and replacement of material of the structure of the tank or container; and
 - (ii) re-levelling or jacking of the tank or container; and
 - (iii) the addition of reinforcing plates to any part of the structure of the tank or container; and
 - (iv) repair to flaws in the structure of the tank or container, such as tears or gouges; and
 - (v) repair or replacement of strakes and plates

service tank means a stationary tank that—

- (a) is part of a stationary container system that consumes fuel; and
- (b) functions as the immediate source of fuel for that stationary container system; but
- (c) is not the main source of fuel for that stationary container system.

solid has the meaning given to it by regulation 3 of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

stationary container system means a stationary tank or process container and its associated equipment, pipework, and fittings, up to and including all transfer points

stationary tank—

- (a) means a tank that is—
 - (i) used or intended to be used for the storage or supply of 1 or more hazardous substances; and
 - (ii) normally located at a specific place; and
- (b) includes—
 - (i) all parts and materials (for example, coatings) that contribute to maintaining the structural and functional integrity of the tank; and
 - (ii) any means of closing the tank (for example, a lid or fitted cover); and
 - (iii) any component of the tank intended to protect the contents of the tank from harm (for example, lightning protection); and
 - (iv) any other component that is an integral part of the tank (for example, a liquid height indicator, heating coil, or internal valve); but
- (c) does not include—
 - (i) packaging to which the Hazardous Substances (Packaging) Regulations 2001 apply; or
 - (ii) packaging to which chapter 6.5, chapter 6.6, and chapter 6.7 of the UN Model Regulations apply; or
 - (iii) a compressed gas container to which the Hazardous Substances (Compressed Gases) Regulations 2004 apply

SWRI means the Southwest Research Institute

SWRI 93-01 means *Test Procedures 93-01: Testing Requirements for Protected Aboveground Flammable Liquid/Fuel Storage or Tanks*

SWRI 95-03 means *Test Procedures 95-03: Method for Evaluating the Fire Performance of Testing Requirements for Protected Aboveground Flammable Liquid/Fuel Storage Tanks*

tank means a stationary container used for the storage of 1 or more hazardous substances

tank wagon has the meaning given to it by regulation 3 of the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004

testing means a method of verifying that a stationary container system is structurally sound and suitable for the service for which it is to be used, and includes hydrostatic pressure tests, pressure tests, and non-destructive testing methods

transfer line means piping that—

- (a) is used or intended to be used to transfer a hazardous substance between a stationary tank and—
 - (i) another stationary tank; or
 - (ii) a vehicle, ship, or aircraft; and
- (b) includes a wharf line and a bunker line

transfer point, in relation to a stationary container system, means the point at which pipework connected to the stationary container system terminates at—

- (a) a dispensing device used to fill packaging or the fuel system, electrical system, or control system of a vehicle, ship, or aircraft; or
- (b) a fitting that is periodically connected to a transfer line to or from a ship or bulk transport container such as a tank wagon, ship, or aircraft

transportable container has the meaning given to it by regulation 3 of the Hazardous Substance (Tank Wagons and Transportable Containers) Regulations 2004

UL refers to Underwriter Laboratories

UL 1316 means the *Standard for Glass-Fibre-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures*

UL 2085 means the *Standard for Protected Aboveground Tanks for Flammable Combustible Liquids*

UN Model Regulations means the 13th revised edition of the *Recommendations on the Transport of Dangerous Goods Model Regulations*, published in July 2003 by the United Nations (New York and Geneva)

UPSS means the 1st Edition of the *Code of Practice for the Design, Installation and Operation of Underground Petroleum Storage Systems*, published in 1992 by the Occupational Safety and Health Service of the Department of Labour

3 References to class, hazard classifications etc

Where this Schedule refers to a substance or group of substances by reference to any 1 or more numerals and letters, then, unless the context otherwise requires, the combination of numbers and letters constitutes the hazard classification of the substance as follows:

- (a) the first (or only) numeral refers to the class of the substance, indicating the intrinsic hazardous properties of the substance as described in regulation 4(1)(a) of the Hazardous Substances (Classification) Regulations 2001; and
- (b) the second and any subsequent numerals (if any) refer to the subclass of the substance within that class, indicating the type of hazard of the substance as described in regulation 4(1)(b) of those regulations; and

- (c) the letter (if any) refers to the category of the substance indicating—
 - (i) for class 2, 3, 4, 5, 8, and 9 substances, the degree of hazard of the substance as described in regulation 4(1)(c) of those regulations:
 - (ii) for class 6 substances, the classification described in regulation 4(6) and (7) of those regulations.

4 Person in charge of stationary container must comply with controls

- (1) The person in charge of a stationary container system to which this Schedule applies must—
 - (a) ensure that the stationary container system is designed, constructed, installed, operated, maintained, inspected, tested, and repaired so as to comply with this Schedule; and
 - (b) ensure that all test certificates required by this Schedule are obtained.
- (2) Subclause (1) does not apply if a provision of this Schedule states that a different person is responsible.

Part 2

General requirements for stationary container systems

5 Accepted engineering principles and practice to be applied

The question whether a stationary container system complies with this Schedule is to be determined having regard to the need to comply with this Schedule in a way that is—

- (a) practicable; and
- (b) consistent with accepted engineering principles and practice.

6 General performance requirements for stationary container systems

- (1) Subject to subclause (2)(a), all parts of a stationary container system must be designed, constructed, installed, operated, maintained, inspected, tested, and repaired so that the stationary container system contains any hazardous substance that is put into it without leakage of that hazardous substance (including any diluent or desensitising agent), when subjected to all likely—
 - (a) operating temperatures; and
 - (b) pressures; and
 - (c) stresses and loadings (including seismic and wind stresses and loadings); and
 - (d) environmental conditions.
- (2) All parts of a stationary container system that are likely to come into contact with a hazardous substance must be designed, constructed, installed, operated, maintained, inspected, tested, and repaired so that, when the stationary container system contains a hazardous substance—
 - (a) it is able to contain the hazardous substance—

- (i) if the stationary container system is designed for use in specific environmental conditions or a specific temperature range, or both, in those environmental conditions, or that temperature range, or both; or
 - (ii) if a hazardous substance to be contained in the stationary container system is subject to requirements relating to environmental conditions or the temperature range in which it must be contained, or both, in those environmental conditions, or that temperature range, or both; or
 - (iii) in any other case, in the temperature range minus 10°C to 50°C; and
- (b) any materials used in the construction, maintenance, or repair of the stationary container system do not react with the hazardous substance in or on the stationary container system, or interact to significantly affect or weaken the stationary container system so that the requirements of this Schedule cannot be complied with.

7 Requirements when contained hazardous substances change

- (1) This clause applies if a stationary tank that has contained 1 or more hazardous substances (**the old substance**) is to contain a different hazardous substance (**the new substance**).
- (2) The new substance must not be introduced into the stationary tank unless—
- (a) the new substance and the old substance are compatible; or
 - (b) if the new substance and the old substance are not compatible, the stationary tank has been completely emptied of the old substance.

Part 3

Obligations and restrictions for above ground stationary tanks for hazardous liquids

8 Design, construction, and installation of above ground stationary tank for hazardous liquids

- (1) This clause does not apply to an above ground stationary tank that is required to comply with the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999.
- (2) Every above ground stationary tank used to store hazardous liquids must be designed and constructed in accordance with—
- (a) NZS/API 650; or
 - (b) NZS/BS 2654; or
 - (c) API 620: 2002; or
 - (d) SWRI 95-03; or
 - (e) SWRI 93-01; or
 - (f) UL 2085; or

- (g) if the tank is used to store toxic, corrosive, or ecotoxic liquids that do not have a flammable classification,—
 - (i) AS 2634; or
 - (ii) BS 4994; or
 - (h) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a), or paragraph (b), or paragraph (c), or paragraph (d), or paragraph (e), or paragraph (f), or paragraph (g).
- (3) Every above ground stationary tank used to store hazardous liquids must—
- (a) be installed on foundations that will prevent dangerous subsidence; and
 - (b) if the volume of the stationary tank is greater than 150 m³, be installed in accordance with the requirements of—
 - (i) NZS/API 650; or
 - (ii) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in subparagraph (i).
- (4) Every above ground stationary tank used to store hazardous liquids must be designed, constructed, and installed to—
- (a) the seismic and wind loading requirements specified in—
 - (i) NZS/API 650; or
 - (ii) NZS/BS 2654; or
 - (iii) NZS 4203: 1992; or
 - (b) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a).

Pressure management

9 Design, construction, installation, and operation of above ground stationary tank for hazardous liquids for pressure management

- (1) This clause does not apply to an above ground stationary tank that is required to comply with the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999.
- (2) Every above ground stationary tank used to store hazardous liquids must be designed, constructed, installed, and operated so as to ensure that the pressure or vacuum resulting from the conditions referred to in subclause (3) will not cause either of the following:
 - (a) stress in excess of the maximum design stress of the tank:
 - (b) the tank to collapse.

- (3) The conditions are—
- (a) filling or emptying of the tank; and
 - (b) changes in atmospheric temperature.
- (4) An above ground stationary tank used to store liquids with a flammable classification complies with subclause (2) if it is vented in accordance with—
- (a) section 5.5 of AS 1940; or
 - (b) API 2000; or
 - (c) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a) or paragraph (b).

10 Emergency pressure management for above ground stationary tank for hazardous liquids

- (1) This clause does not apply to an above ground stationary tank that is required to comply with the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999.
- (2) Every above ground stationary tank used to store liquids with a flammable or oxidising classification must have an emergency pressure management system that ensures that—
- (a) the maximum design stress of the tank is not exceeded in any reasonably likely event; and
 - (b) the tank does not collapse in any reasonably likely event.
- (3) An above ground stationary tank complies with subclause (2)—
- (a) if—
 - (i) for a tank used to store hydrogen peroxide, it is vented in accordance with section 6.7.4(b) of AS 4326; or
 - (ii) for a tank used to store liquids with a flammable or oxidising classification, it is vented in accordance with—
 - (A) API 2000; or
 - (B) section 5.6 and Appendix D of AS 1940; or
 - (b) it is vented in accordance with a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in whichever of paragraph (a)(i) or paragraph (a)(ii) applies.

*Lightning and stray current protection***11 Lightning and stray current protection for above ground stationary tank for flammable liquids**

- (1) This clause applies to every above ground stationary tank that—
- (a) has a safe fill capacity greater than 60 m³; and
 - (b) is used to store flammable liquids of class 3.1A or class 3.1B.
- (2) Every above ground stationary tank to which this clause applies must be designed, constructed, installed, and operated in accordance with—
- (a) sections 1 to 5 and sections 7 to 8 of NZS/AS 1768; or
 - (b) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a).

*Liquid level indicator requirements***12 Filling above ground stationary tank with hazardous liquids**

An above ground stationary tank must not be filled with a hazardous liquid to a level that exceeds its safe fill capacity.

13 Liquid level indicator required for above ground stationary tank for hazardous liquids

- (1) An above ground stationary tank used to store a hazardous liquid must have a liquid level indicator that indicates the actual liquid level in relation to the safe fill level.
- (2) A liquid level indicator that is part of an above ground stationary tank must be designed, constructed, and installed to resist heat and impact to which the liquid level indicator may be subjected in any reasonably foreseeable situation.

Part 4**Obligations and restrictions for above ground stationary tanks for gases****14 Design, construction, and installation of above ground stationary tank for gases**

Every above ground stationary tank used to store class 2.1.1 low pressure liquefiable gases must be designed, constructed, and installed in accordance with—

- (a) section 3.3 and section 3.5 of AS/NZS1596; or
- (b) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a).

15 Above ground stationary tank for class 2.1.1 liquefiable gas not to be in compound

An above ground stationary tank used to contain a class 2.1.1 liquefiable gas must not be installed in a compound or a depression in the ground.

*Pressure Management***16 Design, construction, installation, and operation of above ground stationary tank for gases for pressure management**

- (1) Every above ground stationary tank used to store gases must be designed, constructed, installed, and operated so as to ensure that the pressure or vacuum resulting from the conditions referred to in subclause (2) will not cause either of the following:
- (a) stress in excess of the maximum design stress of the tank;
 - (b) the tank to collapse.
- (2) The conditions are—
- (a) filling or emptying the tank; and
 - (b) changes in atmospheric temperature.

17 Emergency pressure management for above ground stationary tank for gases

- (1) Every above ground stationary tank used to store gases must have an emergency pressure management system that ensures that the maximum design stress of the tank is not exceeded in any reasonably likely event.
- (2) An above ground stationary tank used to store a class 2.1.1 low pressure liquefiable gas complies with subclause (1) if it complies with—
- (a) section 3.4 of AS/NZS 1596; or
 - (b) it complies with a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a).

Part 5**Separation of above ground stationary tanks used to store hazardous substances**

Separation between above ground stationary tanks containing hazardous substances of the same class

18 Separation between above ground stationary tanks containing class 2.1.1 substances

- (1) An above ground stationary tank that contains a class 2.1.1 permanent gas must be separated from—
- (a) another above ground stationary tank that contains a class 2.1.1 permanent gas by a distance of not less than 1 metre; and
 - (b) an above ground stationary tank that contains a class 2.1.1 liquefiable gas by a distance not less than—
 - (i) for quantities of class 2.1.1 permanent gas not exceeding 100 m³, 3 metres; or
 - (ii) for quantities of class 2.1.1 permanent gas exceeding 100 m³ but not exceeding 500 m³, 5 metres; or
 - (iii) for quantities of class 2.1.1 permanent gas exceeding 500 m³, 10 metres.

- (2) An above ground stationary tank that contains a class 2.1.1 liquefiable gas must be separated from another above ground stationary tank that contains a class 2.1.1 liquefiable gas by the greater of—
- (a) the diameter of the largest tank; or
 - (b) if the capacity of the largest tank is less than or equal to 10,000 litres water capacity, 1 metre; or
 - (c) if the capacity of the largest tank is greater than 10,000 litres water capacity, 2 metres; or
 - (d) if the tanks are located end to end on a horizontal plane, the greater of—
 - (i) 3 metres; or
 - (ii) twice the diameter of the largest tank.

19 Separation between above ground stationary tanks containing class 3 hazardous substances

- (1) An above ground stationary tank that contains a class 3 hazardous substance must be separated from another above ground stationary tank that contains a class 3 hazardous substance by the distance specified in column 2 or column 3 of the table in subclause (2) opposite the capacity of the above ground stationary tank in column 1 of that table.

- (2) The capacities, classifications, and distances are:

Column 1 Capacity of above ground stationary tank (000 litres)	Separation Distance (metres)	
	Column 2 Tanks containing class 3.1A, B & C and class 3.2 substances	Column 3 Tanks containing class 3.1D substances
Less than 5	1	0.5
50	1	1
100	1.5	1
250	3	2
500	5	3
1,000	8	5
2,000	11	8
4,000	13	9
10,000	14	10
40,000 or greater	20	14

- (3) If the capacity of an above ground stationary tank is between any 2 successive capacities specified in the table in subclause (2), it must be separated from another above ground stationary tank that contains the same class of hazardous substance by a distance that is proportional to the difference in capacity.

20 Separation between above ground stationary tanks containing class 5, 6, 8, or 9 hazardous substances

An above ground stationary tank that contains a hazardous substance of class 5, or class 6, or class 8, or class 9 that does not have a flammable classification must be separated from another above ground stationary tank that contains a hazardous substance of the same class by not less than 1 metre.

Separation between above ground stationary tanks containing hazardous substances of different classes

21 Separation between above ground stationary tank containing class 2.1.1 hazardous substance and stationary tank containing substance of a different class

- (1) An above ground stationary tank that contains a class 2.1.1 permanent gas must be separated from any other above ground stationary tank that contains a hazardous substance of a different class by a distance not less than—
- (a) for quantities of class 2.1.1 permanent gas not exceeding 100 m³, 3 metres; or

- (b) for quantities of class 2.1.1 permanent gas exceeding 100 m³ but not exceeding 500 m³, 5 metres; or
 - (c) for quantities of class 2.1.1 permanent gas exceeding 500 m³, 10 metres.
- (2) An above ground stationary tank that contains a class 2.1.1 liquefiable gas must be separated from—
- (a) an above ground stationary tank that contains any class 3 hazardous substance, by—
 - (i) if the capacity of the tank that contains the class 3 substance does not exceed 100,000 litres, 6 metres; or
 - (ii) if the capacity of the tank that contains the class 3 hazardous substance has a capacity exceeding 100,000 litres, 15 metres; and
 - (b) an above ground stationary tank that contains a class 2.1.1 permanent gas, or a class 5, or class 6, or class 8, or class 9 hazardous substance that does not have a flammable classification, by—
 - (i) if the water capacity of the tank containing the class 2.1.1 liquefiable gas does not exceed 100,000 litres, 6 metres; or
 - (ii) if the water capacity of the tank containing the class 2.1.1 liquefiable gas exceeds 100,000 litres, 15 metres; and
 - (c) any opening into a below ground stationary tank that contains a class 3 hazardous substance by 6 metres; and
 - (d) the centre line of the outer wall of a compound that contains a class 3 hazardous substance by 3 metres.

22 Separation between above ground stationary tank containing class 3 hazardous substance and above ground stationary tank containing hazardous substance of different class

An above ground stationary tank that contains a class 3 hazardous substance must be separated from an above ground stationary tank that contains a hazardous substance of a different class, other than a class 2.1.1 hazardous substance, by—

- (a) if the capacity of the tank containing the class 3 hazardous substance does not exceed 100,000 litres, 8 metres; or
- (b) if the capacity of the tank containing the class 3 hazardous substance exceeds 100,000 litres, 15 metres.

23 Separation between above ground stationary tank containing class 6, 8, or 9 hazardous substance and stationary tank containing a substance of a different class

An above ground stationary tank that contains a class 6, or class 8, or class 9 hazardous substance that does not have a flammable classification must be separated from a stationary tank that contains another class 6, or class 8, or class 9 hazardous substance that does not have a flammable classification by not less than 1 metre.

*Separation between tanks designed and constructed to certain specifications***24 Separation between tanks designed and constructed to certain specifications**

Despite clause 19, an above ground stationary tank that contains a class 3.1 hazardous substance may be separated from another above ground stationary tank that contains a class 3.1 hazardous substance by a distance of not less than 1 metre if 1 of the tanks is designed and constructed in accordance with—

- (a) SWRI 95-03; or
- (b) SWRI 93-01; or
- (c) UL 2085; or
- (d) a code of practice approved by the Authority under section 79 of the Act specifies requirements equivalent to the requirements specified in paragraph (a), or paragraph (b), or paragraph (c).

*Separation of chemically incompatible substances***25 Above ground stationary tanks containing chemically incompatible substances to have separate secondary containment systems**

- (1) This clause applies to 2 or more above ground stationary tanks if—
 - (a) each tank contains a hazardous substance of any class except a hazardous substance of class 2.1.1; and
 - (b) the hazardous substance in one tank is not compatible with the hazardous substance in the other tank or tanks.
- (2) Each above ground stationary tank to which this clause applies must be installed with a separate secondary containment system.

*Transfer point separation***26 Separation between transfer point and above ground stationary tank containing class 2.1.1 or class 3 hazardous substance**

- (1) An above ground tank used to store a class 2.1.1 permanent gas must—
 - (a) if its transfer point is used to refuel vehicles, be separated from that transfer point by not less than 2.5 metres; and
 - (b) be separated from any transfer point used to transfer class 2.1.1 liquefiable gases, or class 3.1A, or class 3.1B hazardous substances, by not less than 5 metres.
- (2) An above ground stationary tank used to store a class 2.1.1 liquefiable gas must—
 - (a) if its transfer point is used to fill that tank, be separated from that transfer point by not less than the distance specified in the following table:

Water capacity of tank (000 litres)	Distance (metres)
Less than 7.5	0
7.5 to less than 50	3
50 to less than 100	6
100 and over	9

- (b) if its transfer point is used to refuel vehicles (for example, with liquefied petroleum gas fuel), be separated from that transfer point by not less than 3 metres.
- (3) An above ground stationary tank of a capacity greater than 5,000 litres that is used to store a class 3.1A, or class 3.1B, or class 3.1C hazardous substance, and is connected to a transfer point that is used to fill or empty packages, or tank wagons, or transportable containers, must be separated from that transfer point—
 - (a) by not less than 8 metres; or
 - (b) in accordance with a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirement specified in paragraph (a).
- (4) A transfer point that is used to fill an above ground stationary tank with a class 3.1 hazardous substance is not required to be separated from the above ground stationary tank if that tank is designed and constructed in accordance with the following:
 - (a) SWRI 95-03; or
 - (b) SWRI 93-01; or
 - (c) UL 2085; or
 - (d) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a), or paragraph (b), or paragraph (c).

27 Separation points between transfer points

A transfer point that is used to fill packages with a class 2.1.1, or class 3.1A, or class 3.1B, or class 3.1C hazardous substance must be separated from a transfer point used to fill a tank wagon with a class 2.1.1, or class 3.1A, or class 3.1B, or class 3.1C hazardous substance by not less than 8 metres.

Separation between tank wagon and above ground stationary tank

28 Separation between tank wagon and above ground stationary tank

- (1) A tank wagon that is filling, or is being filled from, a stationary tank with a class 2.1.1 hazardous substance must be separated by not less than 15 metres from—

- (a) the stationary tank that it is filling, or is being filled from; and
 - (b) any other stationary tank that contains a class 2.1.1 or class 3.1 hazardous substance.
- (2) A tank wagon that is filling, or is being filled from a stationary tank with a class 3.1A, or class 3.1B, or class 3.1C hazardous substance must be separated by not less than 8 metres from—
- (a) the stationary tank that it is filling, or is being filled from; and
 - (b) any other stationary tank that contains a class 3.1 hazardous substance.

*Location and separation of above ground stationary tanks for class 6, 8, and 9 hazardous substances
from buildings*

29 Location of above ground stationary tanks containing class 6 hazardous substance

An above ground stationary tank that contains a class 6.1A, or class 6.1B, or class 6.1C, or class 6.1D hazardous substance that does not have a flammable classification must be located in accordance with—

- (a) the requirements specified in section 5.8.2 of AS/NZS 4452; or
- (b) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a).

30 Location of above ground stationary tank containing class 8 hazardous substance

An above ground stationary tank that contains a class 8 hazardous substance that does not have a flammable classification or an acutely toxic classification must be located in accordance with—

- (a) the requirements specified in section 5.8.2 of AS 3780; or
- (b) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements in paragraph (a).

31 Separation of tanks containing class 9 hazardous substances

An above ground stationary tank that contains a class 9.1 or class 9.2 hazardous substance that does not also have a flammable classification, or a class 6.1A, or class 6.1B, or class 6.1C or class 6.1D, classification, or a class 8 classification, must be separated from an area of high intensity land use by a distance not less than the distance specified in the following table in relation to the size of the tank:

Container Capacity (litres)	Distance (metres)
Up to 3,000	3
3,001 to 50,000	5
Greater than 50,000	8

Part 6

Below ground tanks for hazardous liquids

32 Design and construction of below ground stationary tank for hazardous liquids

- (1) This clause does not apply to a below ground stationary tank that is required to comply with the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999.
- (2) Every below ground stationary tank used to store hazardous liquids must be designed and constructed in accordance with—
 - (a) AS 1692 (category 4); or
 - (b) BS EN 12285.1:2003; or
 - (c) UL 1316; or
 - (d) ASTM D4021-81; or
 - (e) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a), or paragraph (b), or paragraph (c), or paragraph (d).

33 Installation of below ground stationary tank for hazardous liquids

Every below ground stationary tank used to store hazardous liquids must be installed in accordance with—

- (a) sections 12.8, 12.9, 15, and 16 of UPSS; or
- (b) a code of practice approved by the Authority that specifies requirements equivalent to the requirements specified in paragraph (a).

Pressure management

34 Design, construction, installation, and operation of below ground stationary tank for hazardous liquids for pressure management

- (1) Every below ground stationary tank used to store hazardous liquids must be designed, constructed, installed, and operated so as to ensure that the pressure or vacuum resulting from filling or emptying the tank will not cause either of the following:
 - (a) stress in excess of the maximum design stress;
 - (b) the tank to collapse.
- (2) A below ground stationary tank complies with subclause (1) if—
 - (a) for a tank constructed in accordance with AS 1692, it is vented in accordance with section 5.5. of AS 1940; or
 - (b) it is vented in accordance with a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a).

*Liquid level indicator requirements***35 Filling a below ground stationary tank with a hazardous liquid**

A below ground stationary tank must not be filled with a hazardous liquid to a level that exceeds its safe fill capacity.

36 Liquid level indicator requirements for below ground stationary tank for hazardous liquids

- (1) A below ground stationary tank used to store hazardous liquids must have a liquid level indicator that indicates the actual liquid level in relation to the safe fill level.
- (2) A liquid level indicator that is part of a below ground stationary tank must be designed, constructed, and installed to resist heat and impact to which the liquid level indicator may be subjected in any reasonably foreseeable situation.

Part 7**Obligations and restrictions for below ground stationary tanks for gases****37 Design, construction, and installation of below ground stationary tank for gases**

Every below ground stationary tank used to store a class 2.1.1 low pressure liquefiable gas must be designed, constructed, and installed in accordance with—

- (a) section 3.3 and section 3.5 of AS/NZS1596; or
- (b) a code of practice approved by the Authority under section 79 of the Act relating to the safety of below ground stationary tanks that specifies requirements equivalent to the requirements specified in subparagraph (a).

*Pressure management***38 Design, construction, installation, and operation of below ground stationary tank for gases for pressure management**

Every below ground stationary tank used to store gases must be designed, constructed, installed, and operated to ensure that the pressure or vacuum resulting from filling or emptying the tanks will not cause either of the following:

- (a) stress in excess of the maximum design stress of the tank:
- (b) the tank to collapse.

39 Emergency pressure management for below ground stationary tank for gases

Every below ground stationary tank used to store gases must have an emergency pressure management system that ensures that the maximum design stress of the tank is not exceeded in any reasonably likely event.

Part 8

Disused below ground stationary tanks

40 Disused tanks

- (1) If a below ground stationary tank has ceased to store a hazardous substance, action must be taken in relation to the below ground stationary tank that complies with subclause (2).
- (2) The action that must be taken is—
 - (a) the below ground stationary tank and pipes connected to it must be removed; or
 - (b) an action that—
 - (i) is approved by the Authority as ensuring that the tank and any pipes connected to it are not a hazard; or
 - (ii) complies with a code of practice approved by the Authority under section 79 of the Act for the purposes of this clause.
- (3) When determining whether or not to approve an action under subclause (2)(b)(i), the Authority must have regard to—
 - (a) the hazards associated with any substance that may remain in the below ground stationary tank; and
 - (b) the likelihood and impact of any discharge of substance from the below ground stationary tank; and
 - (c) whether it is practicable, in all the circumstances, to remove the below ground stationary tank; and
 - (d) whether the location of the below ground stationary tank will store or use hazardous substances; and
 - (e) any other matter the Authority thinks fit.
- (4) For the purposes of subclause (1), a below ground stationary tank has ceased to store a hazardous substance if the below ground stationary tank has not stored a hazardous substance for 3 months, unless the Authority is satisfied, on the basis of evidence provided by the person in charge of the stationary tank, that the tank has not ceased to be used.

Part 9

Fire fighting facilities

41 Fire fighting facilities

- (1) This clause does not apply to an above ground stationary tank that is used to contain a class 3.1 substance and is designed and constructed in accordance with—

- (a) SWRI 95-03; or
 - (b) SWRI 93-01; or
 - (c) UL 2085; or
 - (d) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a), or paragraph (b), or paragraph (c).
- (2) Facilities for fighting a fire must be available in respect of every above ground stationary tank that—
- (a) has a water capacity greater than 12,000 litres and contains a class 2.1.1 low pressure liquefiable gas; or
 - (b) is in a cluster with 1 or more other above ground stationary tanks containing a class 2.1.1 low pressure liquefiable gas and the total capacity of the clustered tanks is greater than 12,000 litres; or
 - (c) has a water capacity greater than 60 m³ and contains a class 3.1 hazardous substance; or
 - (d) is in a cluster with 1 or more other above ground stationary tanks that contain a class 3 hazardous substance and the total capacity of the clustered tanks is greater than 60 m³.
- (3) For the purposes of subclause (2)(b)—
- (a) an above ground stationary tank is in a cluster with 1 or more other above ground stationary tanks if it is separated from that tank, or those tanks, by a distance that is less than or equal to the distance specified in the following table:

Water Capacity (litres)	Distance (metres)
Less than 500	2
1,000	3
5,000	5
10,000	7
20,000	9
50,000	10
100,000	12
200,000 or greater	14

- (b) if an above ground stationary tank is in a cluster with another above ground stationary tank, it is also in a cluster with every stationary tank that is in a cluster with that other above ground stationary tank.

- (4) If the capacity of an above ground stationary tank is between any 2 successive capacities specified in subclause (3), then, for the purposes of the table in subclause (3), it is to be taken as having the smaller of those capacities.
- (5) For the purposes of subclause (2)(d), an above ground stationary tank is in a cluster with 1 or more other above ground stationary tanks unless it is separated from those other tanks in accordance with section 10.1b of AS 1940.
- (6) Fire fighting facilities that are required under subclauses (2)(a) or subclause (2)(b) must be—
 - (a) permanently erected around the tank; and
 - (b) capable of delivering water to the entire surface of the tank at a rate of 600 litres per square metre an hour; and
 - (c) equipped with an automatic system that—
 - (i) detects fire; and
 - (ii) starts delivering water to the stationary tank; and
 - (iii) can be manually controlled from a safe location.
- (7) Subject to subclause (1), fire fighting facilities that are required under subclause (2)(c) or subclause (2)(d) must comply with—
 - (a) sections 10.2, 10.10, 10.11, 10.13, 10.14, and Appendix E of AS 1940; or
 - (b) a code of practice approved by the Authority that specifies requirements equivalent to the requirements specified in paragraph (a).

42 Variation or waiver of fire fighting facility requirements

- (1) The Authority, on the application of the person in charge of a stationary tank to which clause 41 applies, may vary whichever of the requirements specified in clause 41(6) or clause 41(7) apply to that tank if the separation distance between that tank and an area of high intensity land use or an area of low intensity land use (as the case may be) exceeds the separation distance required by these or any other controls in relation to controlling the adverse effects of unintended ignition of class 2 or class 3.1 substances.
- (2) When considering whether to grant an application made under subclause (1), the Authority must have regard to—
 - (a) any hazards within the site where the stationary tank is located; and
 - (b) the exposure of the stationary tank to or from any other property; and
 - (c) the available water supply; and

- (d) the likely response time and available resources of the local unit or units of the New Zealand Fire Service; and
 - (e) the ability of the tank to resist fire; and
 - (f) any other matter that the Authority thinks fit.
- (3) The Authority, on application of the person in charge of a stationary tank to which clause 41 applies may waive whichever of the requirements specified in clause 41(6) or clause 41(7) apply to that tank if the Authority is satisfied that—
- (a) a fire will not endanger—
 - (i) any person; or
 - (ii) any property not owned by the person in charge of the stationary container; and
 - (b) the stationary tank is separated from an area of high intensity land use or low intensity land use (as the case may be) by at least the greater of—
 - (i) 5 times the distance specified in relation to the capacity of the stationary tank in clause 41; or
 - (ii) 5 times the distance specified in relation to the capacity of the stationary tank in any other controls that relate to controlling the adverse effects of the unintended ignition of class 2 or class 3.1 hazardous substances.

43 Testing of fire fighting facilities

The fire fighting facilities specified in clause 41 must be tested in accordance with the following:

- (a) a fire fighting facility for an above ground stationary tank used to store class 2.1.1 low pressure liquefiable gas must be tested annually for compliance with clause 41; or
- (b) a fire fighting facility for an above ground stationary tank used to store a class 3.1 hazardous substance must be tested in accordance with section 9.8.15 of AS 1940; or
- (c) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in whichever of paragraph (a) or paragraph (b) applies.

Part 10

General requirements for process containers and equipment

44 Material for process containers and equipment

- (1) This clause applies to—
 - (a) every process container and any associated equipment used to contain a hazardous substance of a class specified in subclause (2); and
 - (b) any structure that supports a process container or equipment to which paragraph (a) refers.

- (2) The classes are:
- (a) class 2.1.1:
 - (b) class 3.1A:
 - (c) class 3.1B:
 - (d) class 3.1C.
- (3) Every process container, any equipment, and any structure to which this clause applies must be made from fire-resisting material.

45 Liquid level indicators for process containers or equipment

A liquid level indicator that is part of a process container or any associated equipment must be—

- (a) designed, constructed, and installed to resist heat and impact to which the liquid level indicator may be subjected in any foreseeable operating condition; and
- (b) if the liquid level indicator is a sight glass, installed so that the sight glass can be isolated from the process container.

46 Filling open process container

An open process container must not be filled to a level less than 150mm from the top of the container.

47 Overflow provision

An open process container in which the surface area of the hazardous substance exposed to the air is greater than 1m² or which has a capacity greater than 750 litres must have an overflow provision that discharges overflow into a safe location.

Part 11

Dispensers for the retail sale of class 2.1.1, 3.1A, 3.1B, and 3.1C hazardous substances

48 Dispensers to be approved

Every dispenser that is connected to a stationary container system for the retail sale of a class 2.1.1, or class 3.1A, or class 3.1B, or class 3.1C hazardous substance, must be—

- (a) approved by the Authority in accordance with clause 49 for its intended use; and
- (b) installed in accordance with accepted engineering principles and practice.

49 Authority to approve dispensers

- (1) The Authority must approve a dispenser if—
- (a) it complies with the requirements of—
 - (i) AS2229.1-1998 and AS2229.2-1998; or
 - (ii) NZS6109.1: 1998 and NZS6109.2: 1998; or

(b) the Authority is satisfied that it meets an equivalent level of safety to the level of safety provided by the standards specified in paragraph (a).

(2) The Authority must register every dispenser approved under subclause (1) on the register kept under clause 51.

50 Deemed registration of previously approved dispensers

(1) Every dispenser that was approved under section 214 of the Act for the retail sale of class 2.1.1, or class 3.1A, or class 3.1B, or class 3.1C hazardous substances is deemed to be approved under clause 49.

(2) The Authority must keep a record of every dispenser to which subclause (1) applies on the register established under clause 51.

51 Register of dispensers for retail sale

(1) The Authority must keep a register of every dispenser approved under clause 49 or deemed to be approved under clause 50.

(2) The Authority must ensure that the register is available for public inspection.

52 Shutdown of dispenser

Every dispenser used for the retail sale of class 2.1.1, or class 3.1A, or class 3.1B, or class 3.1C hazardous substances, must be able to be shut down immediately if an event occurs that gives rise to safety concerns.

Part 12

Vaporisers

53 Approval of vaporisers

(1) A vaporiser must not be used unless it is approved and registered in accordance with this clause.

(2) When determining whether or not to approve a vaporiser, the Authority must consider—

(a) the design that the vaporiser is or is intended to be constructed to; and

(b) the hazards associated with the substance that the vaporiser will be used to vaporise; and

(c) the quantity of the substance that will be held in the vaporiser; and

(d) the rate at which that substance will flow through the vaporiser; and

(e) any other matter the Authority considers appropriate.

(3) The Authority must register every approved vaporiser on the register kept under clause 54.

54 Register of vaporisers

(1) The Authority must keep a register of every vaporiser approved under clause 53.

(2) The Authority must ensure that the register is available for public inspection.

55 Other requirements for vaporisers

- (1) Every vaporiser used to vaporise liquefiable gases must be designed and constructed so that—
- (a) the flow of liquid to the vaporiser is automatically cut off if the vaporiser ceases to vaporise the liquefiable gas; and
 - (b) it is not possible for a liquefiable gas in its liquid phase to discharge from the vaporiser outlet nozzle.
- (2) Every vaporiser that is direct fired or may be an ignition source, and is used to vaporise a liquefiable gas, must be installed—
- (a) for an anhydrous ammonia vaporiser, not less than 15 metres from a tank that contains liquid anhydrous ammonia; or
 - (b) for a liquefied petroleum gas vaporiser with a capacity of 610 litres per hour or less, not less than 8 metres from—
 - (i) an area of low intensity land use or an area of high intensity land use; or
 - (ii) an above ground stationary tank used to store liquefied petroleum gas; or
 - (iii) the filling connections of a tank referred to in subparagraph (ii); or
 - (c) for a liquefied petroleum gas vaporiser with a capacity of greater than 610 litres per hour, not less than 15 metres from—
 - (i) an area of low intensity land use or an area of high intensity land use; or
 - (ii) an above ground stationary tank used to store liquefied petroleum gas; or
 - (iii) the filling connections of a tank referred to in subparagraph (ii).
- (3) Every vaporiser used to vaporise anhydrous ammonia or liquid oxygen must be indirectly heated.
- (4) A vaporiser that is direct fired or may be an ignition source and is located together with 1 or more other such vaporisers, the separation distance under subclause (2) must be determined based on the aggregate capacity of the vaporisers grouped together.

Part 13**Stationary container system in area of regular habitation****56 Installation of stationary container system in area of regular habitation**

- (1) This clause applies to every stationary container system that is—
- (a) located in an area of regular habitation; and
 - (b) used to contain a class 3.1 hazardous substance; and
 - (c) used to provide fuel to an internal combustion engine or burner.

- (2) Every stationary container system to which this clause applies must be installed—
- (a) to ensure that—
- (i) the hazardous substance does not discharge or leak from any part of the stationary container system within the building in which the stationary container system is located; and
 - (ii) any transfer point used for filling the stationary container system with the hazardous substance is located outside the building in which the stationary container system is located; and
 - (iii) any vent pipe, relief valve, or overfill pipe that is part of the stationary container system terminates outside the building in which the stationary container system is located; and
 - (iv) exhaust fumes created as a result of using the hazardous substance are discharged into a safe place that is outside the building in which the stationary container system is located; and
 - (v) the flow of hazardous substance to the equipment of the stationary container system is modulated to match the capacity of the equipment; and
 - (vi) the supply of hazardous substance to the equipment of the stationary container system, or any pump used to supply the substance to that equipment, is cut off if the temperature of the hazardous substance reaches 90°C; and
 - (vii) if the hazardous substance spills or leaks into the secondary containment system of the stationary container system, any pump that is part of the stationary container system is located so that it will not come into contact with the spilled substance; or
- (b) in accordance with a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements in paragraph (a).
- (3) A stationary container system to which this clause applies must have means of preventing the substance from draining from any stationary tank that is part of the stationary container system in the event that pipework that is part of the stationary container system fails. Examples of the means that may be included are anti-siphoning devices, and non-return or other valves.
- (4) The means of preventing the substance from draining referred to in subclause (3) must be fitted as close as practicable to each stationary tank that is part of the stationary container system to which this clause applies.

57 Stationary container system used to contain certain substances in area of regular habitation to have automatic cut-off

- (1) This clause applies to a stationary container system to which clause 56 applies that is used to contain—
- (a) a class 3.1C hazardous substance that has a flashpoint of not less than 50°C that flows into the stationary container system by gravity; or

- (b) a class 3.1D hazardous substance that flows into the stationary container system by gravity.
- (2) A stationary container system to which this clause applies must have a means of automatically cutting off the flow of the substance from a stationary tank that is part of the stationary container system in the event of a fire near the stationary container system.
- (3) The automatic means referred to in subclause (2) must be located as close as practicable to each stationary tank that is part of the stationary container system.

58 Requirements for pipework of stationary container system in area of regular habitation

- (1) This clause applies to pipework that is part of a stationary container system to which clause 56 applies.
- (2) Pipework to which this clause applies must—
 - (a) be—
 - (i) constructed of materials that are fire-resistant; and
 - (ii) constructed of corrosion-resistant materials that do not react with the hazardous substance, or interact to significantly affect or weaken the pipework, so that the requirements of this schedule cannot be complied with; and
 - (iii) installed securely; and
 - (iv) tested to ensure that the pipework does not leak at a pressure that is the greater of—
 - (A) 350kPa; or
 - (B) 1.5 times the maximum working pressure of that pipework; or
 - (b) be constructed, installed, and tested in accordance with a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a).
- (3) For the purposes of subclauses (2)(a)(i) and 2(a)(ii), pipework is constructed of a fire-resistant and corrosion-resistant material if it is constructed from—
 - (a) solid-drawn steel tubing; or
 - (b) mild-steel or wrought iron tubing; or
 - (c) solid-drawn copper tubing.

59 Requirements for heaters to transfer heat to hazardous substance in stationary container system in area of regular habitation

- (1) This clause applies to a heater that is—
 - (a) part of a stationary container system to which clause 56 applies; and
 - (b) used for the purpose of transferring heat to the hazardous substance contained in the stationary container system so that the substance remains fluid.

(2) A heater to which this clause applies must—

(a) have elements that—

- (i) do not generate a heat flux greater than 1.25 watts/cm²; and
- (ii) are sheathed in material that does not react with the hazardous substance, or interact to significantly affect or weaken the element, to prevent fuel coming into direct contact with the heating element; and

(b) have a thermostat control and a back-up control to ensure that fuel cannot be heated in the stationary container system to a temperature that is higher than 20°C below the flashpoint of the fuel.

60 Requirements for heater for combustion of substance in stationary container system in area of regular habitation

(1) This clause applies to a heater that is—

- (a) part of a stationary container system to which clause 56 applies; and
- (b) used for the purpose of efficient combustion of the substance contained in the stationary container system.

(2) A heater to which this clause applies must—

- (a) be designed to ensure that no gas or air pockets develop in the heater; and
- (b) have elements that—
 - (i) do not generate a heat flux greater than 1.25 watts/cm²; and
 - (ii) are sheathed in material that does not react with the hazardous substance, or affect or interact to significantly weaken the element, to prevent fuel coming into direct contact with the heating element; and
- (c) have a thermostat control and a back-up control to ensure that fuel cannot be heated in the stationary container system to a temperature that is higher than 20°C below the flashpoint of the fuel; and
- (d) be capable of maintaining a pre-set temperature range for fuel transferred into any burner that is part of the stationary container system; and
- (e) be able to withstand normal operating pressures; and
- (f) be fitted with a pressure relief valve.

61 Stationary tank in stationary container system in area of regular habitation for class 3.1A or class 3.1B hazardous substances

(1) This clause applies to a stationary tank that—

- (a) is part of a stationary container system to which clause 56 applies; and
 - (b) supplies the equipment of the stationary container system with a class 3.1A or class 3.1B hazardous substance.
- (2) A stationary tank to which this clause applies must be located outside the building in which the stationary container system is located.
- (3) Despite subclause (2), a stationary tank may be located inside a building if—
 - (a) the capacity of the tank does not exceed 5 litres; or
 - (b) the capacity of the tank does not exceed 100 litres and the substance is not supplied to the equipment by gravity.

62 Stationary tank in stationary container system in area of regular habitation for certain class 3.1C hazardous substances and class 3.1D hazardous substances

- (1) This clause applies to a stationary tank that—
 - (a) is part of a stationary container system to which clause 56 applies; and
 - (b) supplies the equipment of the stationary container system directly through pipework with—
 - (i) a class 3.1C substance that has a flashpoint of not less than 50°C; or
 - (ii) a class 3.1D substance.
- (2) A stationary tank to which this clause applies must not be installed in a stationary container system located in a building if, when the stationary tank is installed, the aggregate capacity of all stationary tanks that are part of every stationary container system located in the building exceeds—
 - (a) if the building is not of fire-resistant construction, 25,000 litres; or
 - (b) if the building is of fire-resistant construction, 50,000 litres.
- (3) A stationary tank to which this clause applies must—
 - (a) be located outside the building in which the stationary container system is located; or
 - (b) if it is located in a building,—
 - (i) be located in a room or chamber with a 240/240/240 fire rating that is—
 - (A) in the building in which the stationary container system is located such that no level of the building is located below the tank unless that is impracticable; or
 - (B) in an adjoining building; and
 - (ii) have with a secondary containment system of sufficient capacity to retain the capacity of the stationary tank; or
 - (c) be located in accordance with a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirement specified in paragraph (b).

63 Service tank in stationary container system in area of regular habitation

- (1) This clause applies to a service tank that is part of a stationary container system to which clause 56 applies that is used to store—
- (a) a class 3.1C substance that has a flashpoint of not less than 50°C; or
 - (b) a class 3.1D substance.
- (2) A service tank to which this clause applies must not be installed in a stationary container system located in a building if, when the service tank is installed, the aggregate capacity of all service tanks in every stationary container system located in the building exceeds—
- (a) if the service tank provides fuel to a burner,—
 - (i) if the burner normally consumes more than 300 litres in an 8 hour period, 1,200 litres; or
 - (ii) in any other case, 300 litres; or
 - (b) if the service tank provides fuel to an internal combustion engine,—
 - (i) if the engine normally consumes more than 500 litres in an 8 hour period, 1,200 litres; or
 - (ii) in any other case, 500 litres.
- (3) If the capacity of a service tank to which this clause applies exceeds 500 litres, the service tank must—
- (a) be located—
 - (i) outside the building in which the stationary container system is located; or
 - (ii) in a room or chamber that complies with clause 62(3)(b)(i); and
 - (b) have a secondary containment system of sufficient capacity to retain the capacity of the tank; or
 - (c) be located in accordance with a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a) or paragraph (b).

64 Supply of certain hazardous substances to domestic oil-burning installations

- (1) This clause applies to a stationary container system to which clause 56 applies that is used to contain—
- (a) a class 3.1C hazardous substance that has a flashpoint of not less than 50°C; or
 - (b) a class 3.1D hazardous substance.
- (2) Despite clauses 56 to 63, a stationary container system used to supply a domestic oil-burning installation may be installed in a building if—

- (a) the stationary tank used to store the substance that is part of the stationary container system—
 - (i) does not exceed 2,500 litres in capacity; and
 - (ii) is installed outside the building; and
 - (iii) if the capacity of the stationary tank is greater than 1,200 litres, has a secondary containment system; and
- (b) the burner of the stationary container system is fed by gravity; and
- (c) any valves required by clause 56(3) are fitted outside the building; and
- (d) any pipework that forms part of the stationary container system complies with clause 58.

65 Stationary container system in area of regular habitation

- (1) This clause applies to every stationary container system that—
 - (a) is used to contain a class 3.1 hazardous substance; and
 - (b) is used to provide fuel to an internal combustion engine or burner located in an area of regular habitation.
- (2) Every stationary container system to which this clause applies must be operated in accordance with the following:
 - (a) if the hazardous substance is contaminated with solid particles or water, those particles or that water must be trapped and prevented from entering the equipment of the stationary container system;
 - (b) if the hazardous substance is contaminated with any volatile fractions that have a flashpoint of less than 60°C, those volatile fractions are removed;
 - (c) when the stationary tank that is part of the stationary container system is being filled, such filling is monitored to prevent over-filling;
 - (d) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirement specified in paragraphs (a) to (c).
- (3) Operating instructions for any burner that is part of a stationary container system to which this clause applies must be displayed at all times so that any person checking on or monitoring the stationary container system can see them.

Part 14

Burners

66 Deemed declaration that burner not permitted for use

Every burner for the combustion of a class 3.1D hazardous substance or a class 3.1C hazardous substance with a flashpoint of not less than 50°C that was declared as not permitted for use in New Zealand under regulation 116 of the Dangerous Goods (Class 3 – Flammable Liquids) Regulations 1985 before the commencement of this notice is deemed to be a burner that is not permitted for use under this notice.

67 Register of burners not permitted for use

- (1) The Authority must keep a register of every burner for the combustion of a class 3.1D hazardous substances or a class 3.1C hazardous substance with a flashpoint of not less than 50°C that was declared as not permitted for use in New Zealand under regulation 116 of the Dangerous Goods (Class 3 – Flammable Liquids) Regulations 1985.
- (2) The Authority must ensure that the register is available for public inspection.

68 Approval of burners

- (1) This clause applies to every burner that will be used in an area of regular habitation for the combustion of—
 - (a) class 3.1C hazardous substances with a flashpoint of not less than 50°C; or
 - (b) class 3.1D hazardous substances.
- (2) A burner to which this clause applies must not be used unless it is approved and registered in accordance with this clause.
- (3) Every burner to which this clause applies must be—
 - (a) approved by the Authority; and
 - (b) registered on the register kept under clause 70.
- (4) The Authority may only approve a burner to which this clause applies if the burner complies with—
 - (a) AS 1960: 1975; or
 - (b) BS EN 267: 1999 or
 - (c) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a) or paragraph (b).

69 Deemed approval of previously approved burners

- (1) Every burner for the combustion of a hazardous substance specified in subclause (2) that was approved for use by the Authority under regulation 116 of the Dangerous Goods (Class 3 – Flammable Liquids) Regulations 1985 before the commencement of this notice is deemed to be approved for use

in accordance with this Schedule, subject to such conditions as applied to the approval given under that regulation.

- (2) The substances are—
- (a) class 3.1C hazardous substances with a flashpoint of not less than 50°C; and
 - (b) class 3.1D hazardous substances.
- (3) The Authority must keep a record of every burner to which subclause (1) applies on the register established under clause 70.

70 Register of approved burners

- (1) The Authority must keep a register of every burner approved under clause 68 or deemed to be approved under clause 69.
- (2) The Authority must ensure that the register is available for public inspection.
- (3) For each burner, the Authority must record any conditions on which the approval was granted.

71 Installation requirements for burners

- (1) Every burner that will be used for a hazardous substance specified in subclause (2) must—
- (a) be installed with a remote cut-off valve; and
 - (b) have a combustion chamber capable of resisting an explosion.
- (2) The substances are—
- (a) class 3.1C hazardous substances with a flashpoint of not less than 50°C; and
 - (b) class 3.1D hazardous substances.

72 Operating instructions for burners

A person who supplies a burner that will be used for class 3.1 hazardous substances must provide the person in charge of the burner with comprehensive operating instructions for the burner.

Part 15

Pipework

73 Requirements for pipework

- (1) This clause applies to pipework used to convey a hazardous substance if the pipework is not required to comply with any of the following:
- (a) the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999;
 - (b) the Health and Safety in Employment (Pipelines) Regulations 1999;
 - (c) the Gas Regulations 1993.

- (2) Pipework to which this clause applies must be designed, constructed, installed, operated, inspected, tested, and maintained so as to ensure that the pipework is suitable for all reasonably foreseeable working pressures, temperatures, and structural stresses to which it is likely to be subjected.
- (3) Pipework to which this clause applies must comply with the following:
- (a) transfer lines must be designed, constructed, and installed in accordance with—
 - (i) ASME B31.4; or
 - (ii) AS/NZS 2885.1: 1997; or
 - (iii) if the transfer lines are part of the underground pipework of an underground petroleum storage system, section 13 and section 14 of the UPSS; or
 - (iv) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in subparagraph (i), or subparagraph (ii), or subparagraph (iii):
 - (b) transfer lines must be operated, inspected, tested, and maintained in accordance with—
 - (i) AIP CP26: 1995; or
 - (ii) AS/NZS 2885.3: 1997; or
 - (iii) if the transfer lines are part of the underground pipework of an underground petroleum storage system, section 14 of the UPSS; or
 - (iv) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in subparagraph (i), or subparagraph (ii), or subparagraph (iii):
 - (c) process pipework must be designed, constructed, and installed in accordance with—
 - (i) ASME B31.3; or
 - (ii) ASME B31.4; or
 - (iii) AS/NZS 2885.1: 1997; or
 - (iv) a code of practice approved by the Authority under section 79 of the Act that specifies requirements to the requirements specified in subparagraph (i), or subparagraph (ii), or subparagraph (iii):
 - (d) process pipework must be operated, inspected, tested, and maintained in accordance with—
 - (i) API 570; or
 - (ii) AS/NZS 2885.3: 1997; or
 - (iii) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in subparagraph (i) or subparagraph (ii).

74 Installation of pipework for class 3.1 hazardous substance

A transfer point that is used to fill a stationary tank with a class 3.1 hazardous substance must be installed in accordance with—

- (a) section 7.3.1(b) of AS 1940; or
- (b) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a).

75 Installation of transfer point pipework between ship and stationary tank

- (1) Pipework that is used to transfer a hazardous substance between a ship and a stationary tank must be provided with—
 - (a) a stop valve located in the section of the pipework that runs over or adjacent to the water to ensure that, in the event that the pipework fails, spillage into the water is minimised; and
 - (b) a non-return valve as close as practicable to the transfer point, on the landward side of the transfer point; and
 - (c) a stop valve located as close as practicable to the non-return valve, on the landward side of the non-return valve; and
 - (d) blank flanges or screwed caps at the seaward end of the pipe to ensure the pipework is watertight when it is not in use.
- (2) If the pipework referred to in subclause (1) is used to transfer a class 9.1 hazardous substance, the non-return valve required under subclause (1)(b) must be fitted to ensure that—
 - (a) when the pipework is not being used to transfer the class 9.1 hazardous substance, any substance remaining in the pipework cannot leak from the transfer point; and
 - (b) when the pipework is being used to transfer the class 9.1 hazardous substance to a ship, the non-return valve may be bypassed or otherwise made ineffective only if the bypass is closed or the non-return valve may be made effective when the transfer is complete.
- (3) If the pipework referred to in subclause (1) is used to transfer a class 3.1 substance, the stop valves required by subclause (1)(a) and subclause (1)(c) must comply with—
 - (a) section 7.3.3 of AS 1940; or
 - (b) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a).
- (4) If a fire safe stop valve is required under subclause (3), a stop valve is fire safe if it complies with—
 - (a) BS 6755.2; or
 - (b) API Specification 6FA; or
 - (c) API 607 4th edition; or

- (d) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a), or paragraph (b), or paragraph (c).
- (5) If a stop valve required by subclause (1) is located in an area to which the public has access, the valve must be locked closed when—
 - (a) not in use; or
 - (b) unattended.

Part 16

Fittings

76 Valve for stationary tank containing a hazardous substance

- (1) This clause applies to an above ground stationary tank used to store a hazardous substance if—
 - (a) pipework connected to the tank has 1 or more nozzles; and
 - (b) the hazardous substance could escape from 1 or more of those nozzles if the pipework fails.
- (2) Every stationary tank to which this clause applies must be fitted with a valve that is—
 - (a) as close as practicable to each nozzle referred to in subclause (1); and
 - (b) positioned so as to be able to cut off the flow of hazardous substance from the tank.
- (3) If the tank referred to in subclause (1) contains a class 3.1 hazardous substance, the valve required by subclause (2)—
 - (a) must—
 - (i) comply with section 7.3.3 of AS 1940; and
 - (ii) if the tank has a capacity greater than 2,500 litres, only have valves that are—
 - (A) made of cast steel; and
 - (B) fire safe; or
 - (b) must comply with a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a).
- (4) If a fire safe valve is required under subclause (3), a valve is fire safe if it complies with—
 - (a) BS 6755.2; or
 - (b) API 6FA: 1999; or
 - (c) API 607 4th edition; or
 - (d) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a), or paragraph (b), or paragraph (c).

Part 17**Marking and records for stationary container systems***Markings***77 Marking of stationary tanks**

Every stationary tank used to store a hazardous substance must be marked—

- (a) if the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999 apply, in accordance with those regulations; or
- (b) if those regulations do not apply,—
 - (i) permanently and legibly with the following information:
 - (A) the specification to which the tank was designed (if any):
 - (B) the date on which the tank was manufactured:
 - (C) the materials used in the construction of the tank:
 - (D) the name or mark and address of the manufacturer of the tank:
 - (E) the maximum and minimum design pressure of the tank:
 - (F) the maximum and minimum design temperature of the tank:
 - (G) the maximum permitted density of any liquid that may be contained in the tank:
 - (H) the maximum safe fill level of the tank:
 - (I) an identifier that links the tank to the records and test certificate that relate to the tank; or
 - (ii) in accordance with a code of practice approved by the Authority under section 79 of the Act for the purposes of this clause.

78 Renewal of stationary tank markings

The markings on a stationary tank required by clause 77 must be renewed as often as is necessary to ensure that they are legible.

79 Markings for pipework connected to above ground stationary tank in stationary container system

- (1) This clause applies to pipework connected to an above ground stationary tank that forms part of a stationary container system used to store a hazardous substance.
- (2) Pipework to which this clause applies must be marked—
 - (a) permanently and legibly with the following information:
 - (i) the applicable colour code in accordance with AS 1345; and

- (ii) an arrow or arrows indicating the direction in which fluid flows through the pipework;
or
- (b) in accordance with a code of practice approved by the Authority under section 79 of the Act for the purposes of this clause.

80 Renewal of pipework markings

The markings on pipework required by clause 79 must be renewed as often as is necessary to ensure that such markings are legible.

Records

81 Records for stationary container systems

- (1) There must be available for inspection in relation to every stationary container system used to store a hazardous substance, a plan that describes the physical position of the stationary container system in relation to—
 - (a) if the boundary of any controlled zone is within 5 metres of the legal boundaries of the place, the legal boundaries of the place where the stationary container system is located; and
 - (b) every building within the place; and
 - (c) every other stationary tank within the place; and
 - (d) every storage area for packages containing hazardous substances within the place; and
 - (e) every storage area for compressed gas cylinders within the place; and
 - (f) every secondary containment system for the tank within the place; and
 - (g) every fire fighting system, including firewalls and vapour barriers within the place; and
 - (h) every transfer point for a class 2.1.1 or class 3.1 hazardous substance within the place; and
 - (i) every any transfer point for a class 9.1 hazardous substance that is located above water.
- (2) There must be available for inspection, in relation to every stationary container system, records that describe how a stationary container system complies with—
 - (a) this Schedule; and
 - (b) the requirements for secondary containment in Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001.
- (3) The plan specified in subclause (1), and the records specified in subclause (2), must be updated when the stationary container system to which the plan and records relate is—
 - (a) modified; or
 - (b) repaired; or
 - (c) relocated.

- (4) The plan specified in subclause (1), and the records specified in subclause (2), may be part of any other management documentation relating to the safety of a stationary container system whether or not that documentation is—
- (a) required under the Act or any other Act; or
 - (b) prepared for any other reason.

82 Requirement to keep records for stationary container system

- (1) The documents specified in subclause (2) must be readily available for inspection.
- (2) The documents are—
- (a) the plan specified in clause 81(1); and
 - (b) the records specified in clause 81(2); and
 - (c) the documents (if any) referred to in clause 81(4).

Part 18

Repairs, alterations, and maintenance

83 Repair, alteration, etc of above ground stationary tank for hazardous liquids

- (1) This clause does not apply to an above ground stationary tank that is required to comply with the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999.
- (2) The repair, alteration, maintenance, inspection, and testing of an above ground stationary tank used to store hazardous liquids must be carried out in accordance with—
- (a) API 653; or
 - (b) EEMUA 159; or
 - (c) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in paragraph (a) or paragraph (b).

84 Test certificate becomes invalid if above ground stationary tank repaired, altered, relocated etc

A test certificate issued under Part 19 in respect of a stationary container system becomes invalid if—

- (a) for a stationary container system that includes an above ground stationary tank certified as suitable to contain a hazardous liquid,—
 - (i) repairs or alterations are carried out on the tank below the maximum liquid level of the tank; or
 - (ii) the tank is altered so that the shell height or length is changed; or
 - (iii) other than in the case of a tank that is constructed to be movable and has an integral support structure that rests on the ground, the tank is relocated; or

- (iv) the tank is reconstructed; or
 - (v) there is a change in service in respect of the tank; or
- (b) for a stationary container system that includes an above ground stationary tank certified as suitable to contain a gas,—
 - (i) if the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999 do not apply to the tank, the tank is repaired or altered; or
 - (ii) the tank is relocated; or
 - (iii) there is a change in service in respect of the tank; or
- (c) for a stationary container system that includes a stationary tank, any certificate of inspection issued in respect of that tank under the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999 is suspended or cancelled in accordance with regulation 34 of those regulations.

85 Repair, alteration, etc of below ground stationary tank for hazardous liquids

Every below ground stationary tank used to store hazardous liquids must be repaired, altered, tested, inspected, and maintained in a manner that ensures that the tank continues to meet the standards and codes to which the tank was designed and constructed.

86 Maintenance of below ground stationary tank used to store hazardous liquids

- (1) Every below ground stationary tank used to store a hazardous liquid must—
 - (a) have inventory control checks in accordance with—
 - (i) section 17 of UPSS and Appendix A of Supplement No. 1 to UPSS; or
 - (ii) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements specified in subparagraph (i); and
 - (b) be leak-tested in accordance with—
 - (i) in UPSS —
 - (A) section 19; and
 - (B) appendix A or appendix E; or
 - (ii) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements in subparagraph (i).
- (2) Records must be kept of each test or check performed under subclause (1) in accordance with section 20 of UPSS.

87 Test certificate becomes invalid if below ground stationary tank repaired, altered, relocated, etc

A test certificate issued under Part 19 in respect of a stationary container system that includes a below ground stationary tank used to store a hazardous liquid or a gas becomes invalid if—

- (a) in the case of a below ground stationary tank that is not subject to the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999, the tank is repaired or altered; or
- (b) the tank is—
 - (i) relocated; or
 - (ii) reconstructed; or
- (c) there is a change in service in relation to the tank; or
- (d) tests show that any cathodic protection system or tank coating system no longer provides effective protection from corrosion; or
- (e) there is evidence that the tank is leaking; or
- (f) a certificate of inspection issued in relation to the tank in accordance with the Health and Safety Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999 is suspended or cancelled under regulation 34 of those regulations.

88 Repair, maintenance, etc of equipment

- (1) All equipment that forms part of a stationary container system must be repaired, inspected, tested, and maintained to ensure that the equipment continues to comply with the relevant approval, standard, or code specified in this Schedule to which the equipment was designed, constructed, and installed.
- (2) To avoid doubt, equipment to which subclause (1) applies includes—
 - (a) every vaporiser to which this Schedule applies; and
 - (b) any equipment that is part of any stationary container system to which Part 13 applies.

89 Repair, maintenance, etc of process container

Every process container must be repaired, maintained, inspected, and tested to ensure that the container continues to comply with the standard or code to which the container was designed, constructed, and installed.

90 Process container certification invalidated if process container repaired, altered, relocated, etc

A test certificate issued under Part 19 in respect of a stationary container system that includes a process container becomes invalid if—

- (a) the process container is—
 - (i) repaired; or
 - (ii) altered; or

- (iii) relocated; or
- (iv) replaced; or
- (b) there is a change in service in respect of the container.

Part 19

Test certification

91 Test certificate required for certain installed stationary container systems

- (1) No person may put a hazardous substance into a stationary container system of the type specified in subclause (2) unless the stationary container system is certified in accordance with clause 92.
- (2) The types of stationary container system are—
 - (a) a stationary container system that includes a stationary tank intended to contain a hazardous substance if the stationary tank—
 - (i) is a below ground stationary tank; or
 - (ii) has a water capacity greater than 500 litres and is used or intended to be used to contain a gas; or
 - (iii) has a capacity greater than 2,000 litres and is used or intended to be used to contain a class 3.1A or class 3.1B hazardous substance; or
 - (iv) has a capacity greater than 5,000 litres and used or intended to be used to contain a hazardous liquid, other than a hazardous liquid that is a class 3.1A or class 3.1B hazardous substance:
 - (b) a stationary container system that includes a process container that is part of a stationary container system intended to contain a hazardous substance if the process container—
 - (i) is situated under ground, including ground that has been raised to provide cover for the process container; or
 - (ii) is covered by material other than ground; or
 - (iii) has a water capacity greater than 250 litres and used, or intended to be used, to contain a hazardous gas; or
 - (iv) has a capacity greater than 1,000 litres and used or intended to be used to contain a hazardous liquid:
 - (c) a stationary container system that includes a vaporiser to which this Schedule applies:
 - (d) a stationary container system to which Part 13 applies.

92 Requirements for test certificate

- (1) A test certifier may not issue a certificate in relation to a stationary container system of any of the types specified in clause 91(2) unless the test certifier is satisfied that—

- (a) it complies with the requirements set out in subclause (2); or
 - (b) in the case of a stationary container system for which a compliance plan under Part 20 is in effect,—
 - (i) it does not comply with 1 or more requirements set out in subclause (2); but
 - (ii) it does comply with—
 - (A) the corresponding requirements in the compliance plan; and
 - (B) all of the other requirements set out in subclause (2).
- (2) The requirements referred to in subclause (1) are—
- (a) the stationary container system is—
 - (i) suitable for service with a specified hazardous substance, or specified substances, without leakage of the substance, for all reasonably foreseeable operating pressures, temperatures, stresses and loadings; and
 - (ii) constructed of materials that are compatible with any hazardous substance that the system is likely to contain; and
 - (b) if the stationary container system includes a stationary tank, the stationary tank complies with the requirements specified in this Schedule relating to—
 - (i) tank design; and
 - (ii) tank construction; and
 - (iii) tank installation; and
 - (iv) pressure management; and
 - (v) emergency pressure management; and
 - (vi) the level indicator requirements specified in clauses 13 and 36; and
 - (vii) lightning and stray current protection; and
 - (viii) the separation requirements specified in Part 5; and
 - (ix) fire fighting systems; and
 - (x) the marking requirements under clause 77; and
 - (xi) the requirements relating to plans under clause 81; and
 - (c) if the stationary container system includes a stationary tank with integral secondary containment, the stationary container system complies with regulation 39 or 40 as applicable of the Hazardous Substance (Emergency Management Regulations) 2001; and
 - (d) if the stationary container system includes a stationary tank that contains a class 6, or class 8, or class 9 hazardous substance that is not also a class 2, or class 3, or class 4, or class 5

hazardous substance, the stationary container system complies with the requirements of Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001; and

- (e) if the stationary container system includes a vaporiser, the vaporiser complies with clause 55; and
 - (f) if the stationary container system is in an area of regular habitation, it complies with Part 13; and
 - (g) If the stationary container system includes a burner, the burner is—
 - (i) approved in accordance with clause 68; and
 - (ii) installed in accordance with clause 71; and
 - (h) pipework complies with requirements for—
 - (i) design, construction, and installation; and
 - (ii) operation, inspection, testing, and maintenance; and
 - (iii) installation of transfer point pipework in accordance with clause 75; and
 - (i) the requirements for valves in clause 75 are complied with; and
 - (j) the records specified in clause 81 are available; and
 - (k) any repairs or alterations carried out comply with the requirements of Part 18.
- (3) A stationary container system that includes a stationary tank complies with subclause (2)(b)(i) if the stationary tank is—
- (a) constructed in accordance with a design that is certified under clause 94(1)(a); and
 - (b) marked in accordance with clause 77.
- (4) A stationary container system that includes a stationary tank complies with subclause (2)(b)(i) and subclause (2)(b)(ii) if the stationary tank—
- (a) constructed in accordance with a design that is certified under clause 94(1)(a); and
 - (b) is constructed by a fabricator that is certified under clause 94(1)(b) in respect of that design; and
 - (c) marked in accordance with clause 77.
- (5) A stationary container system that includes a stationary tank used to store a hazardous substance in respect of which a current certificate of inspection has been issued in accordance with the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999 complies with—
- (a) subclause (2)(a); and
 - (b) subclause (2)(b)(i) to (v); and

- (c) subclause (2)(k).
- (6) Pipework forming part of a stationary container system used to store a hazardous substance in respect of which a current certificate of inspection has been issued in accordance with the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999 or the Health and Safety in Employment (Pipelines) Regulations 1999 complies with—
 - (a) subclauses (2)(h)(i) and (ii); and
 - (b) subclause (2)(k).

93 Validity of test certificate for stationary container system

- (1) A test certificate issued under clause 92 is valid for—
 - (a) a period determined by the test certifier that issues the test certificate in accordance with—
 - (i) for an above ground stationary tank used to store a hazardous liquid,—
 - (A) API 653; or
 - (B) NZS/BS 2654; or
 - (C) table 9.1 in AS 1940 for category 6 tanks; or
 - (D) a code of practice approved by the Authority that specifies requirements equivalent to the requirements specified in subsubparagraphs (A) to (C); or
 - (ii) for a place that has more than one above ground stationary tank used to store a hazardous liquid,—
 - (A) API 2610; or
 - (B) EEMUA 159; or
 - (C) a code of practice approved by the Authority that specifies requirements equivalent to the requirements specified in subsubparagraph (A) or subsubparagraph (B); or
 - (b) if the Authority has determined a validity period, that period; or
 - (c) if the stationary container test certificate is based on a certificate of inspection issued under the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999, the period for which the certificate of inspection is valid; or
 - (d) in any other case, 1 year.
- (2) The Authority may not determine a validity period for the purposes of subclause (1)(b) that is longer than—
 - (a) for an above ground stationary tank, 15 years; or
 - (b) for a below ground stationary tank, 10 years; or
 - (c) for a process container, 15 years.

- (3) In determining a validity period for the purposes of subclause (1)(b), the Authority must consider—
- (a) the maximum quantity and type of hazardous substance to be contained or likely to be contained in the stationary container system; and
 - (b) the review and monitoring systems in place for the management of the stationary container system and any hazardous substances to be contained in it; and
 - (c) the compliance history of any person or persons in charge of the stationary container system and, if the stationary container system is owned or managed by an organisation, the compliance history of the organisation.

94 Certification of designs or fabricators

- (1) A test certifier may certify—
- (a) a design for a stationary tank or process container if that design complies with the requirements of this Schedule that relate to the stationary tank or process container (as the case may be); or
 - (b) in relation to a certified design or designs, a fabricator for the purposes of constructing a stationary container system in accordance with the design.
- (2) The test certifier must advise the Authority of—
- (a) for a certified design, the requirements for which the design is certified; or
 - (b) for a certified fabricator, the name and contact details of the fabricator and the design in respect of which the fabricator is certified.

95 Duration of certification for fabricators

Certification of a fabricator under clause 94 remains in force for 3 years or such shorter period as is specified in the certificate.

96 Register of certified design and fabricator

- (1) The Authority must keep a register of every design and every fabricator that is certified under clause 94.
- (2) On receiving the information required under clause 94(2), the Authority must—
- (a) allocate a register number to the certified design or fabricator (as the case may be); and
 - (b) enter the details of the certified design or fabricator (as the case may be) on the register kept under subclause (1).

97 Investigation and removal of design or fabricator

- (1) This clause applies to a stationary container system that is constructed —
- (a) in accordance with a design that is certified under clause 94; and
 - (b) by a fabricator that is certified under clause 94.

- (2) If the Authority receives a report that a stationary container system to which this clause applies does not comply with this Schedule, the Authority may—
- (a) investigate the report; and
 - (b) remove from the register—
 - (i) the design; or
 - (ii) the fabricator; or
 - (iii) both.

98 Information to be shown on test certificate

- (1) Every test certificate issued in accordance with this Schedule must contain the following information:
- (a) an identifier that links the stationary tank or process container to the test certificate:
 - (b) the address or other clear identification of the place where the stationary tank or process container is located:
 - (c) the capacity for which the stationary tank or process container is certified:
 - (d) identification of the hazardous substance or hazardous substances that may be contained in the stationary tank or process container:
 - (e) the code or standard applied in the design of the stationary tank or process container:
 - (f) the year in which the stationary tank or process container was manufactured:
 - (g) the date on which the test certificate is issued:
 - (h) the date on which the test certificate expires:
 - (i) the name of the issuing test certifier:
 - (j) the register number for the test certifier.
- (2) Every test certifier must provide the Authority with a copy of each test certificate issued by him or her as soon as practicable after the certificate is issued.

99 Requirement for more than one test certificate

If more than one test certificate must be obtained under this Schedule in respect of one place—

- (a) the test certifier may, at the request of the person or persons required to obtain the test certificates, examine at the same time any or all of those matters that require test certification for which the test certifier is competent to certify; and
- (b) if more than one matter has been examined, the report provided by the test certifier must indicate whether or not the requirements relating to each matter have been met and must include the reasons for any failure to meet those requirements; and

- (c) a single test certificate may be issued for any or all of those matters if the requirements for each matter have been met.

Part 20

Transitional Provisions

100 Existing stationary container systems

- (1) In this Part, **existing stationary container system** means a stationary container system to which this Schedule applies that, immediately before the commencement of this notice,—
 - (a) was being used to contain a substance described in Schedule 1; or
 - (b) was designed to be used to contain a substance described in Schedule 1 and construction of the stationary container system to that design had commenced.
- (2) An existing stationary container system is not required to comply with this Schedule (except this Part) if—
 - (a) it is used—
 - (i) in the case of a stationary container system to which subclause (1)(a) applies, for the purpose for which it was used immediately before the commencement of this notice; or
 - (ii) in the case of a stationary container system to which subclause (1)(b) applies, for the purpose for which it was designed; and
 - (b) the person in charge of it complies with clauses 101 to 103.
- (3) Despite subclause (2), Part 18 and Part 19 apply to any repair, alteration, or maintenance performed on an existing stationary container system.

101 Compliance plans

The person in charge of an existing stationary container system must—

- (a) no later than 2 years after the commencement of this notice, engage a test certifier to undertake an assessment and prepare a report as to the extent to which the existing stationary container system complies with this Schedule; and
- (b) if the test certifier determines that the existing stationary container system does not comply with this Schedule, no later than 3 years after the commencement of this notice, give the Authority a compliance plan setting out—
 - (i) the test certifier's view, based on whatever information is available to the test certifier, as to the extent to which the existing stationary container system has been maintained and repaired to conform to the standard to which it was constructed and installed; and
 - (ii) how, and the time within which, the existing stationary container system, or the operational procedures applying to it, or both, will be altered so that it complies with—

(A) that standard; or

(B) this Schedule.

102 Compliance plan to be approved by Authority

- (1) The Authority must, as soon as practicable after receiving a compliance plan under clause 101,—
- (a) approve it; or
 - (b) decline to approve it.
- (2) If the Authority declines to approve a compliance plan,—
- (a) the Authority must advise the person who gave the compliance plan to the Authority of the Authority's reasons for declining to approve it; and
 - (b) the Authority and that person must attempt to agree on amendments to the compliance plan that the Authority considers will allow it to approve the compliance plan.
- (3) If the Authority and the person who gave the compliance plan to the Authority agree on amendments to the compliance plan, the Authority must approve the compliance plan with those amendments.
- (4) The Authority and the person who gave the compliance plan to the Authority may, after the compliance plan is approved, from time to time agree amendments to the compliance plan.
- (5) If, at the expiry of 20 working days after the date on which the Authority advised its reasons for declining to approve a compliance plan under subclause (2)(a), or such further period as the Authority may allow, the Authority and the person who gave the compliance plan to the Authority have not agreed on amendments to the compliance plan, clause 100(2) does not apply to the stationary container system to which the compliance plan applies.

103 Compliance plan must be complied with

The person in charge of an existing stationary container system in respect of which a compliance plan has been approved must comply with the compliance plan.

104 Test certificate for stationary container system with compliance plan

A test certifier may issue a test certificate in accordance with clause 92(1) in relation to a stationary container system for which a compliance plan is in effect.

Schedule 9

Controls relating to secondary containment

Part 1

Secondary containment

1 Secondary containment system for storage of class 3.1 hazardous substances

- (1) This clause applies to every secondary containment system to which regulation 39 of the Hazardous Substances (Emergency Management) Regulations 2001 applies if any stationary container located within the secondary containment system is used to contain a class 3.1 hazardous substance described in Schedule 1.
- (2) The quantity of class 3.1 hazardous substance that is stored in a secondary containment system to which this clause applies must not exceed 75,000,000 litres.
- (3) If the quantity of class 3.1 hazardous substances stored within a secondary containment system is greater than 25,000,000 litres, and the substances are stored in more than 1 stationary container, the stationary containers must be divided into groups.
- (4) The aggregate capacity of the stationary containers in a group must not exceed 25,000,000 litres.
- (5) Each group must be separated from all other stationary containers in the secondary containment system by a further secondary containment system (called an **intermediate secondary containment system**).
- (6) An intermediate secondary containment system must comply with all requirements applying to a secondary containment system except—
 - (a) it must have a capacity of at least 50% of the capacity of the largest stationary container located within it; and
 - (b) none of its walls may be higher than 0.25 metres lower than the height of the lowest wall of the secondary containment system in which it is located.

2 Authority may modify aggregate capacity limit for groups of stationary containers

- (1) The Authority may, on application from a person, increase the aggregate capacity of stationary containers that may be in a group within a secondary containment system for the purposes of clause 1(4).
- (2) The Authority may not approve an aggregate capacity under subclause (1) that exceeds 40,000,000 litres.
- (3) In considering an application under subclause (1) the Authority must have regard to the following matters:
 - (a) the degree of hazard associated with the substance or substances stored within each intermediate secondary containment system in the secondary containment system to which the application relates:

- (b) the capacity of the largest stationary container within each intermediate secondary containment system to which the application relates, and the relationship of that capacity to the capacity of the relevant intermediate secondary containment system proposed in the application:
- (c) in relation to each intermediate secondary containment system to which the application relates, the capacity of intermediate secondary containment systems adjacent to it:
- (d) the availability of means to prevent unintended ignition, and of means to control the effects of unintended ignition, of hazardous substances stored within each intermediate secondary containment system to which the application relates:
- (e) any other matter the Authority considers relevant to its consideration of the application.

3 Variation to requirements of regulation 39 of the Hazardous Substances (Emergency Management) Regulations 2001

- (1) The Authority may on application from a person, reduce the capacity that a secondary containment system is required to have to comply with regulation 39 of the Hazardous Substances (Emergency Management) Regulations 2001.
- (2) The Authority may not approve a capacity under subclause (1) that is less than 100% of the capacity of the stationary containers located in the secondary containment system to which the application relates.
- (3) In considering an application under subclause (1) the Authority must take into account any means provided to prevent the capacity of the secondary containment system to which the application relates being taken up by rainwater.

Part 2

Transitional Provisions

4 Existing secondary containment systems

- (1) In this Part, **existing secondary containment system** means a secondary containment system—
 - (a) to which regulation 39 or regulation 40 of the Hazardous Substances (Emergency Management) Regulations 2001 applies; and
 - (b) that was in use immediately before the commencement of this notice.
- (2) During the period commencing with the commencement of this notice and ending 3 years after the date of that commencement, an existing secondary containment system to which regulation 39 of the Hazardous Substances (Emergency Management) Regulations 2001 applies, complies with that regulation if it complies with the requirements that applied to it immediately before the commencement of this notice.
- (3) During the period commencing with the commencement of this notice and ending 3 years after the date of that commencement, an existing secondary containment system to which regulation 40 of the Hazardous Substances (Emergency Management) Regulations 2001 applies, complies with that regulation if it complies with the requirements that applied to it immediately before the commencement of this notice.

- (4) On and from the end of the period specified in subclauses (2) and (3), an existing secondary containment system must comply with—
- (a) in the case of an existing secondary containment system to which regulation 39 of the Hazardous Substances (Emergency Management) Regulations 2001 applies, that regulation; or
 - (b) in the case of an existing secondary containment system to which regulation 40 of the Hazardous Substances (Emergency Management) Regulations 2001 applies, that regulation; or
 - (c) a compliance plan.

5 Compliance plans

- (1) A person may apply to the Authority for approval of a compliance plan in relation to a secondary containment system setting out—
- (a) a programme for bringing the secondary containment system into compliance with regulations 39 or 40 of Hazardous Substances (Emergency Management) Regulations 2001; or
 - (b) variations to the requirements of regulations 39 or 40 of those regulations, compliance with which is deemed to be compliance with those regulations; or
 - (c) both.
- (2) On receiving an application under subclause (1) the Authority must—
- (a) approve the compliance plan to which the application relates; or
 - (b) decline to approve it.

6 Test certification requirements

- (1) Compliance with this Part is deemed to be compliance with regulations 39 and 40 of those regulations for the purposes of—
- (a) clause 92(2)(c) and 92(2)(d) of Schedule 8; and
 - (b) regulations 81(f), 82(h), 99(j), and 121(j) of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001.

Schedule 10

Controls relating to the adverse effects of unintended ignition of class 2 and class 3.1 hazardous substances

Part 1

Preliminary provisions

1 Application of controls

This Schedule applies to every class 2 and every class 3.1 hazardous substance described in Schedule 1.

2 Interpretation

In this Schedule, unless the context otherwise requires,—

area of high intensity land use—

(a) includes—

- (i) an area of regular habitation; and
- (ii) a structure made of or containing combustible materials that would sustain a significant fire; and
- (iii) a high density traffic route; but

(b) does not include a small office constructed of non-combustible materials associated with a hazardous substance location that is used by persons authorised to be at the location by the person in charge of that location

area of low intensity land use—

(a) includes—

- (i) an area where any person may be legally present occasionally; and
- (ii) a public park or reserve; and
- (iii) a traffic route of low or medium traffic density; but

(b) does not include an area of regular habitation

area of regular habitation has the meaning given to it by regulation 3 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

AS refers to the Australian Standard

AS 1940 means the standard on *Chemical Storage and Transport: The Storage and Handling of Flammable and Combustible Liquids*

controlled zone has the meaning given to it by regulation 3 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

hazardous substance location has the meaning given to it by regulation 3 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

NZS refers to the New Zealand Standard published by the Standards Association of New Zealand

NZS 4232.2 (1998) means the standard on *Fire Resisting Glazing Systems*

package has the meaning given to it by regulation 3 of the Hazardous Substances (Packaging) Regulations 2001

secondary containment system has the meaning given to it by regulation 35 of the Hazardous Substances (Emergency Management) Regulations 2001

SWRI means the Southwest Research Institute

SWRI 95-03 means *Test Procedures 95-03: Method for Evaluating the Fire Performance of Testing Requirements for Protected Aboveground Flammable Liquids/Fuel Storage Tanks*

type 1 building means a building or room—

- (a) that is constructed in accordance with the following:
 - (i) the floor, walls, ceiling and doors have a minimum fire-resistance rating of 60/60/60 minutes; and
 - (ii) every door—
 - (A) opens towards the outside of the building or room; and
 - (B) is self-closing; and
 - (iii) every window in the building or room complies with NZS 4232.2 (1998); and
- (b) no part of which is occupied as a dwelling

type 2 building means a building or room—

- (a) that is constructed in accordance with the following:
 - (i) the floor, walls, ceiling and doors have a minimum fire-resistance rating of 120/120/120 minutes; and
 - (ii) every door—
 - (A) opens towards the outside of the building or room; and
 - (B) is self-closing; and
 - (iii) every window in the building or room complies with NZS 4232.2 (1998); and
- (b) no part of which is occupied as a dwelling

type 3 building means a building or room—

- (a) that is constructed in accordance with the following:

- (i) the floor, walls, ceiling and doors have a minimum fire-resistance rating of 240/240/240 minutes; and
 - (ii) every door—
 - (A) opens towards the outside of the building or room; and
 - (B) is self-closing; and
 - (iii) every window in the building or room complies with NZS 4232.2 (1998); and
- (b) no part of which is occupied as a dwelling

type A building means a building—

- (a) that is—
 - (i) constructed to provide a platform on which 1 or more containers are located; and
 - (ii) secured to prevent unauthorised access; and
 - (iii) part of a secondary containment system; and
- (b) the following parts of which are made of non-combustible materials:
 - (i) the platform; and
 - (ii) the shelter roof (if any)

type B building means a framed building that—

- (a) has non-combustible cladding; and
- (b) is part of a secondary containment system

type C building means a building that—

- (a) is made of brick, block concrete, or reinforced concrete that has a fire rating of 120/120/120 minutes; and
- (b) has a roof made of wood and iron or equivalent products; and
- (c) is part of a secondary containment system

type D building means a building that—

- (a) is made of brick, block concrete, or reinforced concrete that has a fire-resistance rating of 240/240/240 minutes; and
- (b) has a reinforced concrete roof with a fire rating of 240/240/240 minutes; and
- (c) is part of a secondary containment system

3 References to class, hazard classifications etc

Where this Schedule refers to a substance or group of substances by reference to any 1 or more numerals and letters, then, unless the context otherwise requires, the combination of numbers and letters constitutes the hazard classification of the substance as follows:

- (a) the first (or only) numeral refers to the class of the substance, indicating the intrinsic hazardous properties of the substance as described in regulation 4(1)(a) of the Hazardous Substances (Classification) Regulations 2001; and
- (b) the second and any subsequent numerals (if any) refer to the subclass of the substance within that class, indicating the type of hazard of the substance as described in regulation 4(1)(b) of those regulations; and
- (c) the letter (if any) refers to the category of the substance indicating the degree of hazard of the substance as described in regulation 4(1)(c) of those regulations.

4 Person in charge of hazardous substance location must comply with controls

- (1) The person in charge of a hazardous substance to which this Schedule applies must ensure that the adverse effects of unintended ignition of the substance are controlled in accordance with this Schedule.
- (2) Subclause (1) does not apply if a provision of this Schedule states that a different person is responsible.

Part 2**Separation of substances not located at a hazardous substance location****5 Application of this part**

This Part applies to a class 2.1.1, or class 2.1.2, or class 3.1 hazardous substance that is present at a location that is not a hazardous substance location.

6 Separation of class 2.1.1 permanent gases from areas of high and low intensity land use

- (1) This clause applies to—
 - (a) 1 or more cylinders that—
 - (i) is, or are, as the case may be, located together at a place; and
 - (ii) contains, or each contain, as the case may be, a class 2.1.1 permanent gas to which this Part applies ; or
 - (b) an above ground stationary tank that contains a class 2.1.1 permanent gas to which this Part applies.
- (2) A cylinder to which this clause applies must be separated from—
 - (a) an area of high intensity land use by not less than the distance specified in column 2 of the table set out in clause 30(1) opposite the aggregate volume of the permanent gas contained in

all of the cylinders to which this clause applies located at the same place specified in column 1 of that table; or

- (b) an area of low intensity land use by not less than the distance specified in column 3 of the table set out in clause 30(1) opposite the aggregate volume of the permanent gas contained in all of the cylinders to which this clause applies located at the same place specified in column 1 of that table.
- (3) An above ground stationary tank to which this clause applies must be separated from—
- (a) an area of high intensity land use by not less than the distance specified in column 2 of the table set out in clause 30(1) opposite the volume of the permanent gas contained in the above ground stationary tank specified in column 1 of that table; or
 - (b) an area of low intensity land use by not less than the distance specified in column 3 of the table set out in clause 30(1) opposite the volume of the permanent gas contained in the above ground stationary tank specified in column 1 of that table.
- (4) A transfer point that is connected to an above ground stationary tank to which this clause applies must be separated from—
- (a) an area of high intensity land use by not less than the distance specified in column 2 of the table set out in clause 30(1) opposite the volume of the permanent gas contained in the above ground stationary tank that is connected to the transfer point specified in column 1 of that table; or
 - (b) an area of low intensity land use by not less than the distance specified in column 3 of the table set out in clause 30(1) opposite the volume of the permanent gas contained in the above ground stationary tank that is connected to the transfer point specified in column 1 of that table.

7 Separation of cylinders containing class 2.1.1 liquefiable gases from areas of high and low intensity land use

- (1) 1 or more cylinders containing a class 2.1.1 liquefiable gas to which this Part applies located together at a place must each be separated from—
- (a) an area of high intensity land use by not less than the distance specified in column 2 of the table set out in clause 30(2) opposite the aggregate quantity of liquefiable gas contained in all of the cylinders located at the place specified in column 1 of that table; or
 - (b) an area of low intensity land use by not less than the distance specified in column 3 of the table set out in clause 30(2) opposite the aggregate quantity of liquefiable gas contained in all of the cylinders located at the place specified in column 1 of that table.
- (2) Subclause (1)(a) does not apply to 1 or more cylinders located together at a place that contains, or each contain in aggregate, as the case may be, up to 250 kg of class 2.1.1 liquefiable gas if—
- (a) there are no buildings within 2 metres of the cylinder or cylinders; or
 - (b) if there are 1 or more buildings within 2 metres of the cylinder or cylinders, each building—

- (i) is constructed of fire-resisting materials; and
- (ii) does not have any opening located—
 - (A) below the top of any cylinder; or
 - (B) within 2 metres of any cylinder.

8 Separation of above ground stationary tank and transfer point for class 2.1.1 liquefiable gas from areas of high and low intensity land use

An above ground stationary tank that contains a class 2.1.1 liquefiable gas to which this Part applies, and each transfer point connected to it, must be separated from—

- (a) an area of high intensity land use by not less than the distance specified in column 2 of the table set out in clause 30(3) opposite the capacity of the above ground stationary tank specified in column 1 of that table; or
- (b) an area of low intensity land use by not less than the distance specified in column 3 of the table set out in clause 30(3) opposite the capacity of the above ground stationary tank specified in column 1 of that table.

9 Separation of building holding class 2.1.2 flammable aerosols from area of high intensity land use

- (1) This clause applies to a building that holds class 2.1.2 flammable aerosols to which this Part applies the aggregate capacity of which exceed 3,000 litres.
- (2) A building to which this clause applies must be separated from an area of high intensity land use by not less than 3 metres.

10 Separation of above ground stationary tank containing class 3.1 hazardous substance from areas of high and low intensity land use

- (1) This clause does not apply to a domestic oil-burning installation that—
 - (a) includes a stationary tank that has a capacity that does not exceed 1,200 litres; and
 - (b) complies with clause 64 of Schedule 8 (Controls for stationary container systems) of this notice.
- (2) An above ground stationary tank that contains a class 3.1 hazardous substance to which this Part applies must be separated from—
 - (a) an area of high intensity land use by not less than the distance specified in whichever of column 2 or column 3 of the table set out in clause 30(4) relates to the substance opposite the capacity of the above ground stationary tank in column 1 of that table; or
 - (b) an area of low intensity land use by not less than the distance specified in column 4 of the table set out in clause 30(4) opposite the capacity of the above ground stationary tank in column 1 of that table.

11 Requirement to hold certain packages of class 3.1 hazardous substance in building of a certain type

- (1) A class 3.1A, or class 3.1B, or class 3.1C hazardous substance to which this Part applies that is contained in 1 or more packages, other than a package to which clause 15 applies, must be held in a building of a type specified in subclause (2).
- (2) The types are—
 - (a) a type A building; or
 - (b) a type B building; or
 - (c) a type C building; or
 - (d) a type D building.
- (3) Despite subclause (1), a class 3.1A, or class 3.1B, or class 3.1C hazardous substance that is contained in 1 or more packages may be held in a storage cabinet—
 - (a) that is constructed and installed in accordance with section 4.5 of AS 1940; and
 - (b) if—
 - (i) each package does not contain more than 20 litres of the hazardous substance; and
 - (ii) the aggregate quantity of all packages of class 3.1A, or class 3.1B, or class 3.1C hazardous substance does not exceed 250 litres.

12 Separation of building holding packages up to 60 litres of class 3.1A or class 3.1B hazardous substances or packages of any amount of class 3.1C hazardous substance from area of high intensity land use

- (1) This clause applies to every type A, or type B, or type C, or type D building that holds 1 or more packages that contains, or each contain, as the case may be,—
 - (a) up to 60 litres of a class 3.1A or class 3.1B hazardous substance to which this Part applies; or
 - (b) a class 3.1C hazardous substance to which this Part applies.
- (2) A building to which this clause applies must be separated from an area of high intensity land used by not less than the distance specified in column 4 of the table set out in clause 30(5) opposite the aggregate quantity of all packages of class 3.1A, or class 3.1B, or class 3.1C hazardous substances specified in whichever of column 1, or column 2, or column 3 of that table relates to the building.

13 Separation of building holding packages of more than 60 litres of class 3.1A or class 3.1B hazardous substances from area of high intensity land use

- (1) This clause applies to every type A, type B, type C, or type D building that holds 1 or more packages that contains, or each contain, as the case may be, more than 60 litres of a class 3.1A or class 3.1B hazardous substance to which this Part applies.
- (2) A building to which this clause applies must be separated from an area of high intensity land use by not less than the distance specified in column 4 of the table set out in clause 30(6) opposite the

aggregate quantity of all packages of class 3.1A and class 3.1B hazardous substances specified in whichever of column 1, or column 2, or column 3 of that table relates to the building.

14 Separation of transfer point for class 3.1 hazardous substance from area of high intensity land use

A transfer point used for a class 3.1 hazardous substance to which this Part applies must be separated from an area of high intensity land use by the distance specified in whichever of column 1 or column 2 of the table set out in clause 30(7) relates to the classification of the substance.

15 Class 3.1 hazardous substance being used or in open package or container to be held in building of a certain type

(1) This clause applies to a class 3.1A, or class 3.1B, or class 3.1C hazardous substance to which this Part applies that is—

- (a) being used; or
- (b) contained in 1 or more packages or containers, 1 or more of which is open.

(2) A class 3.1A or class 3.1B hazardous substance to which this clause applies must be held in—

- (a) a type 1 building; or
- (b) a type 2 building; or
- (c) a type 3 building.

16 Separation of building holding package containing class 3.1 hazardous substance from area of high intensity land use

(1) This clause applies to every type 1, or type 2, or type 3 building in which a class 3.1A, or class 3.1B, or class 3.1C hazardous substance to which this Part applies is—

- (a) being used; or
- (b) contained in 1 or more packages or containers, 1 or more of which is open.

(2) A building to which this clause applies—

- (a) if the building is a type 1 building, must not hold—
 - (i) a class 3 hazardous substance in a container that is more than 20 litres in capacity; and
 - (ii) an aggregate quantity of class 3 hazardous substances of more than 450 litres; and
- (b) if the building is a type 2 or type 3 building, must not hold more than—
 - (i) in the case of a class 3.1A or class 3.1B hazardous substance, an aggregate quantity of 7,500 litres; or
 - (ii) in the case of a class 3.1C hazardous substance, 10,000 litres; and

- (c) must be constructed so as to hold any class 3.1A or class 3.1B hazardous substance that exceeds 60 litres, or a class 3.1C hazardous substance that exceeds 100 litres, as close as practicable to ground level.
- (3) Every building to which this clause applies must be separated from an area of high intensity land use by not less than—
 - (a) in the case of a class 3.1A or class 3.1B hazardous substance, the distance specified in whichever of column 2 or column 3 of the table set out in clause 30(8) relates to that type of building opposite the aggregate quantity of the hazardous substance specified in column 1 of that table; or
 - (b) in the case of a class 3.1C hazardous substance, the distance specified in whichever of column 2 or column 3 of the table set out in clause 30(8) relates to that type of building opposite the aggregate quantity of the hazardous substance specified in column 1 of that table.

Part 3

Separation of substances present at hazardous substance location

17 Application of this Part

This Part applies to a class 2.1.1, or class 2.1.2, or class 3.1 hazardous substance that is present at a hazardous substance location.

18 Requirement to establish controlled zone

- (1) The person in charge of a hazardous substance location at which a class 2.1.1, or class 2.1.2, or class 3.1 hazardous substance is present must—
 - (a) establish a controlled zone around the location that complies with this Part; and
 - (b) exclude all non-authorised personnel from that controlled zone.
- (2) Subclause (1)(b) does not apply if the controlled zone—
 - (a) includes 1 or more areas for the retail sale of a hazardous substance referred to in subclause (1) to which the public have access; and
 - (b) warning signs are provided that are visible to persons in the controlled zone that specify that no ignition source may be brought within that controlled zone.

19 Separation of class 2.1.1 permanent gas from boundary of controlled zone

- (1) This clause applies to—
 - (a) 1 or more cylinders that contains, or each contain, as the case may be, a class 2.1.1 permanent gas to which this Part applies; or
 - (b) an above ground stationary tank that contains a class 2.1.1 permanent gas to which this Part applies.
- (2) A cylinder to which this clause applies must be separated from the boundary of the controlled zone by not less than—

- (a) if the controlled zone abuts an area of high intensity land use, the distance specified in column 2 of the table set out in clause 30(1) opposite the aggregate volume of the permanent gas contained in all of the cylinders to which this clause applies specified in column 1 of that table; or
 - (b) an area of low intensity land use, the distance specified in column 3 of the table set out in clause 30(1) opposite the aggregate volume of the permanent gas contained in all of the cylinders to which this clause applies specified in column 1 of that table.
- (3) An above ground stationary tank to which this clause applies must be separated from the boundary of the controlled zone by not less than—
- (a) if the controlled zone abuts an area of high intensity land use, the distance specified in column 2 of the table set out in clause 30(1) opposite the volume of the permanent gas contained in the above ground stationary tank specified in column 1 of that table; or
 - (b) if the controlled zone abuts an area of low intensity land use, the distance specified in column 3 of the table set out in clause 30(1) opposite the volume of the permanent gas contained in the above ground stationary tank specified in column 1 of that table.
- (4) A transfer point that is connected to an above ground stationary tank to which this clause applies must be separated from the boundary of the controlled zone by not less than—
- (a) if the controlled zone abuts an area of high intensity land use, the distance specified in column 2 of the table set out in clause 30(1) opposite the volume of the permanent gas contained in the above ground stationary tank that is connected to the transfer point specified in column 1 of that table; or
 - (b) if the controlled zone abuts an area of low intensity land use, the distance specified in column 3 of the table set out in clause 30(1) opposite the volume of the permanent gas contained in the above ground stationary tank that is connected to the transfer point specified in column 1 of that table.

20 Separation of cylinders containing class 2.1.1 liquefiable gas from boundary of controlled zone

- (1) 1 or more cylinders containing a class 2.1.1 liquefiable gas to which this Part applies must be separated from the boundary of the controlled zone by not less than—
- (a) if the controlled zone abuts an area of high intensity land use, the distance specified in column 2 of the table set out in clause 30(2) opposite the aggregate quantity of liquefiable gas contained in all of the cylinders at the hazardous substance location specified in column 1 of that table; or
 - (b) if the controlled zone abuts an area of low intensity land use, the distance specified in column 3 of the table set out in clause 30(2) opposite the aggregate quantity of liquefiable gas contained in all of the cylinders at the hazardous substance location specified in column 1 of that table.
- (2) Subclause (1)(a) does not apply to 1 or more cylinders present at a hazardous substance location that contains, or each contain in aggregate, as the case may be, up to 250 kg of class 2.1.1 liquefiable gas if—

- (a) there are no buildings within 2 metres of the cylinder or cylinders; or
- (b) if there are 1 or more buildings within 2 metres of the cylinder or cylinders, each building—
 - (i) is constructed of fire-resisting materials; and
 - (ii) does not have any opening located—
 - (A) below the top of any cylinder; or
 - (B) within 2 metres of any cylinder.

21 Separation of above ground stationary tank and transfer point for class 2.1.1 liquefiable gas from boundary of controlled zone

An above ground stationary tank that contains a class 2.1.1 liquefiable gas to which this Part applies, and each transfer point connected to it, must be separated from the boundary of the controlled zone by not less than—

- (a) if the controlled zone abuts an area of high intensity land use, the distance specified in column 2 of the table set out in clause 30(3) opposite the capacity of the above ground stationary tank specified in column 1 of that table; or
- (b) if the controlled zone abuts an area of low intensity land use, the distance specified in column 3 of the table set out in clause 30(3) opposite the capacity of the above ground stationary tank specified in column 1 of that table.

22 Separation of building holding class 2.1.2 flammable aerosols from boundary of controlled zone

- (1) This clause applies to a building that holds class 2.1.2 flammable aerosols to which this Part applies the aggregate capacity of which exceeds 3,000 litres.
- (2) If the controlled zone containing a building to which this clause applies abuts an area of high intensity land use, the building must be separated from the boundary of the controlled zone by not less than 3 metres.

23 Separation of above ground stationary tank containing class 3.1 hazardous substance from boundary of controlled zone

- (1) This clause does not apply to a domestic oil-burning installation that—
 - (a) includes a stationary tank that has a capacity that does not exceed 1,200 litres; and
 - (b) complies with clause 64 of Schedule 8 (Controls for Stationary Container Systems) of this notice.
- (2) An above ground stationary tank that contains a class 3.1 hazardous substance to which this Part applies must be separated from the boundary of the controlled zone—
 - (a) if the controlled zone abuts an area of high intensity land use, by not less than the distance specified in whichever of column 2 or column 3 of the table in clause 30(4) relates to the substance opposite the capacity of the above ground stationary tank in column 1 of that table; or

- (b) if the controlled zone abuts an area of low intensity land use, by not less than the distance specified in column 4 of the table in clause 30(4) opposite the capacity of the above ground stationary tank in column 1 of that table.

24 Requirement to hold certain packages of class 3.1 hazardous substance in building of a certain type

- (1) A class 3.1A, or class 3.B, or class 3.1C hazardous substance to which this Part applies that is contained in 1 or more packages, other than a package to which clause 28 applies, must be held in a building of a type specified in subclause (2).
- (2) The types are—
 - (a) a type A building; or
 - (b) a type B building; or
 - (c) a type C building; or
 - (d) a type D building.
- (3) Despite subclause (1), a class 3.1A, or class 3.1B, or class 3.1C hazardous substance that is contained in 1 or more packages may be held in a storage cabinet—
 - (a) that is constructed and installed in accordance with section 4.5 of AS 1940; and
 - (b) if—
 - (i) each package does not contain more than 20 litres of the hazardous substance; and
 - (ii) the aggregate quantity of all packages of class 3.1A, or class 3.1B, or class 3.1C hazardous substance does not exceed 250 litres.

25 Separation of building holding packages up to 60 litres of class 3.1A or class 3.1B hazardous substances or packages of any amount of class 3.1C hazardous substance from boundary of controlled zone

- (1) This clause applies to every type A, or type B, or type C, or type D building that holds 1 or more packages that contains, or each contain, as the case may be,—
 - (a) up to 60 litres of a class 3.1A or class 3.1B hazardous substance to which this Part applies; or
 - (b) a class 3.1C hazardous substance to which this Part applies.
- (2) If the controlled zone in which a building to which this clause applies abuts an area of high intensity land use, the building must be separated from the boundary of the controlled zone by not less than the distance specified in column 4 of the table set out in clause 30(5) opposite the aggregate quantity of all packages of class 3.1A, or class 3.1B, or class 3.1C hazardous substances specified in whichever of column 1, or column 2, or column 3 of that table relates to the building.

26 Separation of building holding packages of more than 60 litres of class 3.1A or class 3.1B hazardous substances in controlled zone from boundary of controlled zone

- (1) This clause applies to every type A, or type B, or type C, or type D building that holds 1 or more packages that contains, or each contain, as the case may be, more than 60 litres of a class 3.1A or class 3.1B hazardous substance to which this Part applies.
- (2) If the controlled zone in which a building to which this clause applies abuts an area of high intensity land use, the building must be separated from the boundary of the controlled zone by not less than the distance specified in column 4 of the table set out in clause 30(6) opposite the aggregate quantity of all packages of class 3.1A and class 3.1B hazardous substances specified in whichever of column 1, or column 2, or column 3 of that table relates to the building.

27 Separation of transfer point for class 3.1 hazardous substance from boundary of controlled zone

A transfer point used for a class 3.1 hazardous substance to which this Part applies must be separated from the boundary of the controlled zone if the controlled zone abuts an area of high intensity land use by not less than the distance specified in whichever of column 1 or column 2 of the table set out in clause 30(7) relates to the classification of the substance.

28 Class 3.1 hazardous substance being used or in open package or container to be held in building of a certain type

- (1) This clause applies to a class 3.1A, or class 3.1B, or class 3.1C hazardous substance to which this Part applies that is—
 - (a) being used; or
 - (b) contained in 1 or more packages or containers, 1 or more of which is open.
- (2) A class 3.1A or class 3.1B hazardous substance to which this clause applies must be held in—
 - (a) a type 1 building; or
 - (b) a type 2 building; or
 - (c) a type 3 building.

29 Separation of building holding package containing class 3.1 hazardous substance from boundary of controlled zone

- (1) This clause applies to every type 1, or type 2, or type 3 building in which a class 3.1A, or class 3.1B, or class 3.1C hazardous substance to which this Part applies is—
 - (a) being used; or
 - (b) contained in 1 or more packages or containers, 1 or more of which is open.
- (2) A building to which this clause applies—
 - (a) if the building is a type 1 building, must not hold—

- (i) a class 3 hazardous substance in a container that is more than 20 litres in capacity; and
 - (ii) an aggregate quantity of class 3 hazardous substances of more than 450 litres; and
 - (b) if the building is a type 2 or type 3 building, must not hold more than—
 - (i) in the case of a class 3.1A or class 3.1B hazardous substance, an aggregate quantity 7,500 litres; or
 - (ii) in the case of a class 3.1C hazardous substance, 10,000 litres; and
 - (c) must be constructed so as to hold any class 3.1A or class 3.1B hazardous substance that exceeds 60 litres, or a class 3.1C hazardous substance that exceeds 100 litres, as close as practicable to ground level
- (3) Every building to which this clause applies must be separated from an area of high intensity land use by not less than—
- (a) in the case of a class 3.1A or class 3.1B hazardous substance, the distance specified in whichever of column 2, or column 3 of the table set out in clause 30(8) relates to that type of building opposite the aggregate in quantity of the hazardous substance specified in column 1 of that table; or
 - (b) in the case of a class 3.1C hazardous substance, the distance specified in whichever of column 2 or column 3 in the table set out in clause 30(8) relates to that type of building opposite the aggregate quantity of the hazardous substance specified in column 1 of that table.

Part 4

Calculation of Distances

30 Tables

- (1) The table referred to in clauses 6 and 19 is:

Volume of permanent gas (m3)	Area of high intensity land use (metres)	Area of low intensity land use (metres)
Column 1	Column 2	Column 3
Less than 100	5	5
100 to less than 500	10	5
Equal to or greater than 500	15	5

(2) The table referred to in clauses 7 and 20 is:

Aggregate quantity of liquefiable gas in cylinders only (kg)	Area of high intensity land use (metres)	Area of low intensity land use (metres)
Column 1	Column 2	Column 3
Up to 100	0	0
250	2	0
500	2	2
2,000	3	2
5,000	5	3
10,000	7	4
50,000	8	5
More than 50,000	15	8

(3) The table referred to in clauses 8 and 21 is:

Water capacity of tank (litres)	Area of high intensity land use (metres)	Area of low intensity land use (metres)
Column 1	Column 2	Column 3
Up to 500	2	2
1,000	3	3
5,000	8	5
10,000	11	7
20,000	15	9
50,000	17	10
100,000	21	12
200,000 or more	28	14

(4) The table referred to in clauses 10 and 23 is:

Capacity (litres)	Area of high intensity land use (metres)		Area of low intensity land use (metres)
Column 1	Column 2	Column 3	Column 4
	3.1 A-C	3.1 D	3.1 A-C
Up to 600	2	0	0
1000	2	1.5	0
2500	3	2	0
5000	4	3	2
25000	5	4	3
50000	6	5	4
100,000	7	6	4
250,000	8	7	4.5
500,000	10	8	5
1,000,000	11	9	7
2,000,000	13	10	8
4,000,000	15	12	9
10,000,000	20	16	10
40,000,000 and over	30	25	15

(5) The table referred to in clauses 12 and 25 is:

Aggregate quantity of class 3.1A or class 3.1B or class 3.1C hazardous substance (litres)			Area of high intensity land use (metres)
Column 1	Column 2	Column 3	Column 4
Type A or B building	Type C building	Type D building	
250	1,000	20,000	0
500			1

750	2,000		2
2,000		50,000	3
		100,000	4
	10,000	200,000	5
		400,000 or more	6
10,000	100,000		10
25,000	400,000 or more		15
40,000			17
60,000 or more			20

(6) The table referred to in clauses 13 and 26 is:

Aggregate quantity of class 3.1 A or class 3.1B hazardous substance (litres)			Area of high intensity land use (metres)
Column 1	Column 2	Column 3	Column 4
Type A or B building	Type C building	Type D building	
		10,000	0
	500	0	2
250	2,000		3
		20,000	4
1,000		100,000	6
		200,000	8
	10,000	400,000 or more	10
10,000	25,000		15
	40,000		17
20,000	60,000		20
	200,000 or more		25
40,000			27
60,000 or more			30

- (7) The table specified in clauses 14 and 27 is:

Area of high intensity land use (metres)	
Column 1	Column 2
3.1 A, B and C	3.1 D
10	5

- (8) The table specified in clauses 16 and 29 is:

	Area of high intensity land use (metres)	
Column 1	Column 2	Column 3
Quantity of class 3.1A and class 3.1B hazardous substance (litres)	Type 2 building	Type 3 building
Up to 1,750	0	0
3,000	5	0
7,500	8	5
Quantity of class 3.1C hazardous substance (litres)		
Up to 2,500	0	0
4,000	5	0
10,000	8	5

31 Calculation of distances for intermediate capacities

- (1) In Part 2 and Part 3, if the—
- (a) capacity of an above ground stationary tank; or
 - (b) aggregate quantity of a hazardous substance to which this Part applies contained in—
 - (i) 1 or more cylinders; or
 - (ii) 1 or more packages; or
 - (iii) 1 or more packages or containers, 1 or more of which is open,—

(as the case may be) is between any 2 successive capacities (an **intermediate capacity**) specified in relation to that capacity or quantity, the separation distance must be calculated in accordance with subclause (2).

- (2) The separation distance that applies to an intermediate capacity is the distance that is proportional to the difference in capacity or quantity, as the case may be.

32 Distance not to extend beyond boundary unless agreed

A separation distance from an area of high intensity land use calculated under Part 2 or Part 3 must not be calculated beyond the boundary of the property at which the relevant hazardous substance is present unless the person in charge of any property beyond that boundary agrees that the separation distance may be calculated to include the property of which the person is in charge.

33 Reduction of separation distance in certain circumstances

- (1) Subject to subclause (2), the Authority may, on application by the person in charge of a place at which a hazardous substance is located, reduce the separation distance required in respect of a hazardous substance under Part 2 or Part 3.
- (2) The Authority may reduce the separation distance by up to 50% if—
- (a) in the case of a hazardous substance contained in an above ground stationary tank, the tank is designed and constructed in accordance with SWRI 95-03; or
 - (b) there is an intervening wall, and—
 - (i) the distance is measured in the horizontal plane around the end of any intervening wall by the most direct line to—
 - (A) the area of high intensity land use; or
 - (B) the area of low intensity land use; or
 - (C) boundary of the controlled zone; and
 - (ii) the wall—
 - (A) has a fire resistance rating of 240/240/240 minutes; and
 - (B) is vapour-tight; and
 - (C) is of sufficient size to protect the area of high intensity land use or area of low intensity land use (whichever is applicable) from a hazardous substance fire.
- (3) When considering an application under subclause (1), the Authority must take into account—
- (i) the quantity and location of the relevant hazardous substance, and any other hazardous substance located at that place; and
 - (ii) the capacity of any fire fighting facilities at that place; and
 - (iii) the fire-resistance rating of any structure (for example, walls, floors, ceilings, and doors) that contain the hazardous substance; and

- (iv) in the case of a hazardous substance in an above ground stationary tank, whether the design and construction of the tank will protect the tank from fire.

Schedule 11

Transitional controls and variations to controls

Preliminary provisions

1 Purpose of Schedule

- (1) The purpose of this Schedule is to provide for a transitional period to allow persons dealing with hazardous substances to which this notice applies to comply with the Act, and controls under the Act, in relation to those hazardous substances.
- (2) This Schedule achieves the purpose described in subclause (1) by—
 - (a) providing that, for a period of 6 months from the commencement of this notice, a person may comply with the obligations and restrictions that applied to those hazardous substances immediately before the commencement of this notice, as if this notice (other than this Schedule) had not been given; and
 - (b) providing for obligations and restrictions that apply after the expiry of that six month period to progressively impose the requirements of the Act, and controls under the Act, in relation to those hazardous substances.

2 Interpretation

In this Schedule, unless the context otherwise requires,—

cylinder has the meaning given to it by regulation 3 of the Hazardous Substances (Compressed Gases) Regulations 2004.

tracked substance means a substance in respect of which compliance with the Hazardous Substances (Tracking) Regulations 2001 is required.

3 Persons may comply with Act and controls at any time

Except as specifically provided in this Schedule, this Schedule does not prevent a person from complying with the Act, and controls under the Act, as if this Schedule did not exist.

4 Schedule does not apply to new locations or new substances at existing locations

Nothing in this Schedule applies to any of the following:

- (a) a hazardous substance location that was not in use immediately before 1 April 2004;
- (b) a hazardous substance at a hazardous substance location if the hazardous substance was not permitted to be stored at the location immediately before that date;
- (c) a stationary container system to which Schedule 8 applies:

5 Compliance with obligations and restrictions as at 31 March 2004 for transitional period

- (1) A person complies with the Act in relation to a hazardous substance to which this notice applies, if the person complies with all obligations and restrictions that were in force in relation to the hazardous substance as at the close of 31 March 2004.
- (2) This subclause is subject to any other provision of this Schedule.
- (3) This clause expires with the close of 30 September 2004.

Hazardous substance locations

6 Transitional provision for hazardous substance locations

- (1) This clause applies to every licence granted or deemed to be granted by the Authority under section 217 of the Act and every provisional licence granted under section 218 of the Act, that is in force immediately before the close of 31 March 2004.
- (2) Every licence to which this clause applies continues in force for the purposes of this Schedule.
- (3) On and from 1 October 2004 every licence to which this clause applies is deemed to be a test certificate issued under—
 - (a) in the case of a class 2.1.1, 2.1.2, or 3.1 substance, regulation 81 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001; or
 - (b) in the case of a class 3.2 or 4 substance, regulation 82 of those regulations; or
 - (c) in the case of a class 5 substance, regulation 98 or regulation 120 of those regulations.
- (4) A test certificate referred to in subclause (3) expires—
 - (a) in the case of every tracked substance, at the close of 31 December 2004;
 - (b) in the case of the substances specified in subclause (5)—
 - (i) if the Authority approves an implementation plan under clause 7, a date specified by the Authority when it approves the implementation plan; or
 - (ii) in every other case, at the close of 31 December 2004;
 - (c) in the case of any other substance,—
 - (i) if an application is made in accordance with clause 7, on the date that the application is granted or declined; or
 - (ii) if an application is not made in accordance with clause 7, at the close of the month in which the application is required by that clause to be made; or

- (iii) if the Authority approves an implementation plan under clause 7, a date specified by the Authority when it approves the implementation plan.
- (5) The substances referred to in subclause (4)(b) are—
- (a) every class 2.1.1A substance held in one or more stationary containers (not being 1 or more cylinders) at a hazardous substance location that have a water capacity, or combined water capacity, as the case may be, of 1,800 litres or greater; or
- (b) petrol, aviation gasoline, racing gasoline, and substances of class 3.1B and 3.1C held at a hazardous substance location where the combined quantity of those substances is 50,000 litres or greater.
- (6) A date specified by the Authority under subclause (4)(b)(i) or subclause (4)(c)(iii) must not be later than 30 June 2006.
- (7) While a test certificate referred to in subclause (3) is in force, regulations 77(2), 94(3), and 116(3) of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001 do not apply to the hazardous substance location to which the test certificate relates.

7 Application for test certificate for hazardous substance location

- (1) The holder of a test certificate referred to in clause 6(3) must apply to a test certifier for a test certificate of a type referred to in clause 6(3).
- (2) An application under subclause (1) (other than an application in relation to a tracked substance) must be made before the close of the month specified in column 1 of the following table opposite the first letter (or first 2 letters, as the case may be) of the surname, in the case of a natural person, or the name, in the case of any other person, specified on the licence referred to in clause 6(1) as the holder of the licence, in column 2 of the table:

Column 1	Column 2
Month	First letter(s) of name
October 2004	A
December 2004	B
February 2005	Ca to Ck
March 2005	Cl to Cz
June 2005	D, E, F
August 2005	G, H
October 2005	I, J, K, L

November 2005	M
January 2006	N, O, P
March 2006	Q, R, S
May 2006	T, U, V
June 2006	W, X, Y, Z, Other

- (3) Subclauses (1) and (2) do not apply if, on the application of the holder of a test certificate, the Authority approves a plan setting out the times by which applications for test certificates for 1 or more hazardous substances locations referred to in the plan must be made.

Approved handlers

8 Approved handler requirements: locations requiring test certificates

- (1) This clause applies to each hazardous substance location in respect of which a licence referred to in clause 6(1) applies.
- (2) The holder of the licence is not required to comply with the regulations specified in subclause (3) in relation to the hazardous substances to which the licence applies at that location until—
- (a) in the case of every tracked substance, 1 January 2005:
 - (b) in the case of the substances specified in clause 6(5)—
 - (i) if the Authority approves a plan under clause 10, a date specified by the Authority when it approves the plan; or
 - (ii) in every other case, 1 January 2005:
 - (c) in the case of any other substance,—
 - (i) if the Authority approves a plan under clause 10, a date specified by the Authority when it approves the plan; or
 - (ii) in every other case, the day after the date on which the test certificate for the location referred to in clause 6(3) expires under clause 6(4).
- (3) The regulations are—
- (a) regulations 56, 60(2), 83(1)(b), 89, 94(4), 99(b), 101(1)(c), 107, 116(4), 121(b), and 124(1)(c) of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001; and
 - (b) regulation 9 of the Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations 2001; and
 - (c) regulation 6 of the Hazardous Substances (Tracking) Regulations 2001.

9 Approved handler requirements: locations for which test certificate not required

- (1) This clause applies to any person in charge of a place where a hazardous substance is present that is not a hazardous substance location to which clause 8 applies.
- (2) The person in charge of a place to which this clause applies is not required to comply with the regulations specified in clause 8(3) until—
 - (a) in the case of a tracked substance, 1 January 2005; or
 - (b) in the case of any other substance,—
 - (i) if the Authority approves a plan under clause 10, a date specified by the Authority when it approves the plan; or
 - (ii) in every other case, the close of the month specified in column 1 of the table in clause 7(2) opposite the first letter (or first 2 letters, as the case may be) of the surname, in the case of a natural person, or the name, in the case of any other person, of the person in charge of the location, in column 2 of that table.

10 Implementation plan for approved handler requirements

- (1) The Authority may, on the application of any person, approve a plan setting out 1 or more dates by which the requirements of the regulations specified in clause 8(3) must be complied with for the hazardous substance locations or hazardous substances, as the case may be, to which the plan relates.
- (2) The Authority may not approve a plan under subclause (1) that provides for those requirement to be complied with by a date that is later than 30 June 2006.

11 Packaging

- (1) Packaging of a hazardous substance to which this notice applies is not required to comply with the Hazardous Substances (Packaging) Regulations 2001 if it complies with the requirements for packaging that applied to the hazardous substance at the close of 31 March 2004.
- (2) This clause expires with the close of 31 March 2006.

12 Identification, documentation, and signage

- (1) A person is not required to comply with the regulations specified in subclause (2) in relation to a hazardous substance to which this notice applies if the person complies with the requirement for identification, documentation, and signage in relation to that substance that applied to the hazardous substance at the close of 31 March 2004.
- (2) The regulations are—
 - (a) the Hazardous Substances (Identification) Regulations 2001; and
 - (b) regulations 11 to 14 of the Hazardous Substances (Disposal) Regulations 2001; and

- (c) regulations 6-20, 42 of the Hazardous Substances (Emergency Management) Regulations 2001.

- (3) This clause expires with the close of 31 March 2006.

13 Fire extinguishers and emergency management response plans

- (1) A person in charge of a place where a hazardous substance to which this notice applies is present is not required to comply with regulation 21 to 34 of the Hazardous Substances (Emergency Management) Regulations 2001 if that person complies with the requirements for fire extinguishers and emergency management response plans that applied in relation to the substance at the close of 31 March 2004.
- (2) This clause expires with the close of 31 March 2005.

Schedule 12**Changes to controls relating to transportation of packaged dangerous goods****Control – Hazardous
Substances (Classes 1
to 5 Controls)
Regulations 2001****Changes to Controls**

Regulation 56

This regulation applies as if there were inserted, immediately after this regulation, the following regulation:

**56A Exception to approved handler requirement for
transportation of packaged dangerous goods**

- (1) Regulation 56 is deemed to be complied with if—
- (a) in the case of a hazardous substance being transported on land—
 - (i) in the case of a hazardous substance being transported by rail, the person who drives the rail vehicle that is transporting the substance is fully trained in accordance with the approved safety system for the time being approved under section 6D of the Transport Services Licensing Act 1989; and
 - (ii) in every other case, the person who drives, loads, and unloads the vehicle that is transporting the substance has a current dangerous goods endorsement on his or her driver licence; and
 - (iii) in all cases, Land Transport Rule: Dangerous Goods 1999 (Rule 45001) is complied with; or
 - (b) in the case of a hazardous substance being transported by sea, one of the following is complied with:
 - (i) Maritime Rules: Part 24A – Carriage of Cargoes – Dangerous Goods (MR024A):
 - (ii) International Maritime Dangerous Goods Code; or
 - (c) in the case of a hazardous substance being transported by air, Part 92 of the Civil Aviation

Rules is complied with.

(2) Subclause (1)(a)—

- (a) does not apply to a tank wagon or a transportable container to which the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004 applies; but
- (b) despite paragraph (a), does apply to an intermediate bulk container that complies with chapter 6.5 of the UN Model Regulations.

(3) Subclause (1)(c)—

- (a) applies to pilots, aircrew, and airline ground personnel loading and managing hazardous substances within an aerodrome; but
- (b) does not apply to—
 - (i) the handling of a hazardous substance in any place that is not within an aerodrome; or
 - (ii) the loading and managing of any hazardous substance for the purpose of aerial spraying or dropping.

(4) In this regulation, **UN Model Regulations** means the 13th revised edition of the Recommendation on the Transport of Dangerous Goods Model Regulations, published in 2003 by the United Nations.

Regulation 89

This regulation applies as if there were inserted, immediately after this regulation, the following regulation:

89A Exception to approved handler requirement for transportation of packaged dangerous goods

(1) Regulation 89 is deemed to be complied with if—

- (a) in the case of a hazardous substance being transported on land—
 - (i) in the case of a hazardous substance being transported by rail, the person who drives the rail vehicle that is transporting the substance is fully trained in accordance with the approved safety system for the time being approved under section 6D of the Transport Services Licensing Act 1989; and

- (ii) in every other case, the person who drives, loads, and unloads the vehicle that is transporting the substance has a current dangerous goods endorsement on his or her driver licence; and
 - (iii) in all cases, Land Transport Rule: Dangerous Goods 1999 (Rule 45001) is complied with; or
 - (b) in the case of a hazardous substance being transported by sea, one of the following is complied with:
 - (i) Maritime Rules: Part 24A – Carriage of Cargoes – Dangerous Goods (MR024A):
 - (ii) International Maritime Dangerous Goods Code; or
 - (c) in the case of a hazardous substance being transported by air, Part 92 of the Civil Aviation Rules is complied with.
- (2) Subclause (1)(a)—
- (a) does not apply to a tank wagon or a transportable container to which the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004 applies; but
 - (b) despite paragraph (a), does apply to an intermediate bulk container that complies with chapter 6.5 of the UN Model Regulations.
- (3) Subclause (1)(c)—
- (a) applies to pilots, aircrew, and airline ground personnel loading and managing hazardous substances within an aerodrome; but
 - (b) does not apply to—
 - (i) the handling of a hazardous substance in any place that is not within an aerodrome; or
 - (ii) the loading and managing of any hazardous substance for the purpose of aerial spraying or dropping.
- (4) In this regulation, **UN Model Regulations** means the 13th revised edition of the Recommendation on the

Transport of Dangerous Goods Model Regulations,
published in 2003 by the United Nations.

Regulation 107

This regulation applies as if there were inserted, immediately after this regulation, the following regulation:

107A Exception to approved handler requirement for transportation of packaged dangerous goods

- (1) Regulation 107 is deemed to be complied with if—
- (a) in the case of a hazardous substance being transported on land—
 - (i) in the case of a hazardous substance being transported by rail, the person who drives the rail vehicle that is transporting the substance is fully trained in accordance with the approved safety system for the time being approved under section 6D of the Transport Services Licensing Act 1989; and
 - (ii) in every other case, the person who drives, loads, and unloads the vehicle that is transporting the substance has a current dangerous goods endorsement on his or her driver licence; and
 - (iii) in all cases, Land Transport Rule: Dangerous Goods 1999 (Rule 45001) is complied with; or
 - (b) in the case of a hazardous substance being transported by sea, one of the following is complied with:
 - (i) Maritime Rules: Part 24A – Carriage of Cargoes – Dangerous Goods (MR024A):
 - (ii) International Maritime Dangerous Goods Code; or
 - (c) in the case of a hazardous substance being transported by air, Part 92 of the Civil Aviation Rules is complied with.
- (2) Subclause (1)(a)—
- (a) does not apply to a tank wagon or a transportable container to which the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations

2004 applies; but

- (b) despite paragraph (a), does apply to an intermediate bulk container that complies with chapter 6.5 of the UN Model Regulations.
- (3) Subclause (1)(c)—
- (a) applies to pilots, aircrew, and airline ground personnel loading and managing hazardous substances within an aerodrome; but
 - (b) does not apply to—
 - (i) the handling of a hazardous substance in any place that is not within an aerodrome; or
 - (ii) the loading and managing of any hazardous substance for the purpose of aerial spraying or dropping.
- (4) In this regulation, **UN Model Regulations** means the 13th revised edition of the Recommendation on the Transport of Dangerous Goods Model Regulations, published in 2003 by the United Nations.

**Control – Hazardous
Substances (Classes
6, 8 and 9 Controls)
Regulations 2001**

Changes to Controls

Regulation 9

This regulation applies as if there were inserted, immediately after this regulation, the following regulation:

**9A Exception to approved handler requirement for
transportation of packaged dangerous goods**

- (1) Regulation 9 is deemed to be complied with if—
- (a) in the case of a hazardous substance being transported on land,—
 - (i) in the case of a hazardous substance being transported by rail, the person who drives the rail vehicle that is transporting the substance is fully trained in accordance with the approved safety system for the time being approved under section 6D of the Transport Services Licensing Act 1989; and

- (ii) in every other case, the person who drives, loads, and unloads the vehicle that is transporting the substance has a current dangerous goods endorsement on his or her driver licence; and
 - (iii) in all cases, Land Transport Rule: Dangerous Goods 1999 (Rule 45001) is complied with; or
 - (b) in the case of a hazardous substance being transported by sea, one of the following is complied with:
 - (i) Maritime Rules: Part 24A – Carriage of Cargoes – Dangerous Goods (MR024A):
 - (ii) International Maritime Dangerous Goods Code; or
 - (c) in the case of a hazardous substance being transported by air, Part 92 of the Civil Aviation Rules is complied with.
- (2) Subclause (1)(a)—
- (a) does not apply to a tank wagon or a transportable container to which the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004 applies; but
 - (b) despite paragraph (a), does apply to an intermediate bulk container that complies with chapter 6.5 of the UN Model Regulations.
- (3) Subclause (1)(c)—
- (a) applies to pilots, aircrew, and airline ground personnel loading and managing hazardous substances within an aerodrome; but
 - (b) does not apply to—
 - (i) the handling of a hazardous substance in any place that is not within an aerodrome; or
 - (ii) the loading and managing of any hazardous substance for the purpose of aerial spraying or dropping.
- (4) In this regulation, **UN Model Regulations** means the 13th

revised edition of the Recommendation on the Transport of Dangerous Goods Model Regulations, published in 2003 by the United Nations.

Schedule 13

Tolerable exposure limits and environmental exposure limits

1. Tolerable Exposure Limits

- (1) The following tolerable exposure limits are set for petrol, aviation gasoline and racing gasoline. These limits are for each of the following three substances when they are components of petrol, aviation gasoline and racing gasoline:

(a) Benzene

TEL _{air}	10 µg/m ³
TEL _{water}	10 µg/L

(b) Toluene

TEL _{air}	400 µg/m ³
TEL _{water}	800 µg/L

(c) Xylene

TEL _{air}	870 µg/m ³
TEL _{water}	600 µg/L

2. Environmental Exposure Limits

- (1) The following environmental exposure limits are set for petrol, aviation gasoline and racing gasoline. These limits are for each of the following four substances when they are components of petrol, aviation gasoline and racing gasoline:

(a) Benzene

EEL _{water}	2,000 µg/L
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(b) Toluene

EEL _{water}	330 µg/L
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(c) o-Xylene

EEL _{water}	640 µg/L
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(d) m/p-Xylene

EEL _{water}	340 µg/L
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