# 25D Hazardous Substances

**Table 1: Permitted Quantities by Zone**

| Hazardous substance Property and Class | HSNO Subclass | Industrial Zone | Rural Zone Commercial Zone Maori Purpose Zone | Residential Zone Estuary Estates Zone |
|---|---|---|---|---|
| Explosive 1 | 1.1 (all) | 50kg | 20kg | 0 |
| | 1.2 (all) | 500kg | 200kg | 0 |
| | 1.3 (all) | 1,500kg | 500kg | 0 |
| | 1.2 or 1.3 with 1.1 | 50kg | 20kg | 0 |
| Flammable 2 (gases) (Aerosols) | 1.1 (all) | 1,000kg or 2,000$m^3$ | 500kg or 1,000$m^3$ | 20kg or 40$m^3$ |
| | 2.1 (within 50m of m.s.z.) | 200kg | 100kg | Na |
| | All other non-hazardous | 5,000kg or 10,000$m^3$ | 2,000kg or 4,000$m^3$ | 100kg |
| | LPG | 3,000kg | 1,500kg | 100kg |
| | LPG (within 50m of m.s.z) | 1,000kg | 500kg | Na |
| Flammable 3 (Liquids) | 3.1A, 3.1B | 6,000kg | 2,000kg | 100kg |
| | 3.1A, 3.1B (within 50, of m.s.z.) | 2,000kg | 600kg | Na |
| | 3.1C | 20,000kg | 6,000kg | 300kg |
| | 3.1D | 60,000kg | 20,000kg | 1,000kg |
| | 3.2 (all) | 3,000kg | 1,000kg | 50kg |
| Flammable 4 (Solids) | 4.1 (all) | 3,000kg | 1,000kg | 50kg |
| | 4.2 (all) | 1,000kg | 400kg | 20kg |
| | 4.3 (all) | 1,000kg | 400kg | 20kg |
| Oxidising Capacity 5 | 5.1.2 Gases | 1,000$m^3$ | 400$m^3$ | 40$m^3$ |
| | 5.1.1 (all) | 3,000kg | 1,500kg | 50kg |
| | 5.2 (all) | 1,000kg | 500kg | 20kg |
| Toxic 6 | 6.1A | 500kg | 200kg | 0 |
| | 6.1 Gases | 300$m^3$ | 100$m^3$ | 0 |
| | 6.1A (within 50m of m.s.z.) | 200kg | 100kg | 0 |
| | 6.1B, 6.3-6.9 | 6,000kg | 2,000kg | 50kg |
| | 6.1B, 6.3-6.9 (within 50m of m.s.z.) | 2,000kg | 1,000kg | Na |
| | 6.1C | 20,000kg | 6,000kg | 300kg |
| | 6.1C (within 50m of m.s.z.) | 6,000kg | 2,000kg | 0kg |
| Corrosive 8 | 8.1, 8.2A, 8.3 | 6,000kg | 2,000kg | 50kg |
| | 8.2B, 8.2C | 20,000kg | 10,000kg | 300kg |
| Eco-toxic 9 | 9.1A, 9.2A, 9.3A, 9.4A | 500kg | 500kg | 500kg |
| | (within 30m of water body or coastal water) | 100kg | 100kg | 100kg |
| | 9.1B, 9.2B, 9.3B, 9.4B | 10,000kg | 10,000kg | 10,000kg |
| | (within 30m of water body or coastal water) | 3,000kg | 3,000kg | 3,000kg |
| | 9.1C, 9.2C, 9.3C, 9.4C | 30,000kg | 30,000kg | 30,000kg |
| | (within 30m of water body or coastal water) | 10,000kg | 10,000kg | 10,000kg |
| High BOD5 (>10,000 mg/l) | | 100,000kg | 40,000kg | 20,000kg |
| | (within 30m of water body or coastal water) | 40,000kg | 20,000kg | 20,000kg |

**Explanation of Table 1:-**

All – means all categories as defined in the Hazardous Substances (Classification) Regulations 2001. (Categories are identified alphabetically for particular classes of hazardous substance. For example, class 1 explosives are divided into categories A-H, J, K, L, N and S).

BOD5 – the biochemical oxygen demand (measured over a 5 day period), which is the amount of dissolved oxygen in a body of water required for the breakdown of organic matter in the water.

Class 1.2 and 1.3 substances are to be treated as class 1.1 substances if they are stored with class 1.1 substances.

HSNO subclass – has its meaning in the Hazardous Substances (Classification) Regulations 2001.

m.s.z. – means more sensitive zone in the following order of sensitivity:

- Industrial Zones,
- Rural Zone, Commercial Zone, Maori Purposes Zones
- Residential Zone, Estuary Estates Zone

NA' means 'not applicable'

The quantity thresholds defining the consent status in the table above are to be applied to the aggregate of all substances proposed to be used or stored in one facility within one hazard grouping. The measure is in kilograms (kg) apart from Class 2.1, 5.1 and 6.1 permanent or compressed gases which are in $m^3$ at Standard Temperature Pressure.

Standard Temperature Pressure is standard temperature/pressure which refers to ambient conditions, i.e. 101.3kPa and 20°C.

**Table 2: Conditions for all Permitted Activities**

The following conditions apply to all Activities Permitted under this Appendix, provided that pipelines need only comply with item 5.11 below.

| Item | Condition |
|---|---|
| 5.1 Site design | Any part of a site that is involved in the manufacture, mixing, packaging, storage, loading, transfer, usage or handling of hazardous substances is designed, constructed and operated in a manner that prevents:<br>(a) the occurrence of any off-site adverse effects from the activity on people, ecosystems, physical structures and other parts of the environment, and<br>(b) the contamination of air, land or water (including groundwater, potable water supplies and surface waters) in the event of a spill or other type of release of hazardous substances. |
| 5.2 Site layout | The separation between on-site facilities and the property boundary is adequate to protect neighbouring facilities, land uses and sensitive environments. |
| 5.3 Storage | The storage of any hazardous substances is managed to prevent:<br>(a) the unintentional release of the hazardous substance, and<br>(b) the accumulation of any liquid or solid spills or fugitive vapours and gases in enclosed areas, that might have adverse effects on people, ecosystems or built structures. |
| 5.4 Drainage systems | Site drainage systems are designed, constructed and operated in a manner that prevents the entry or discharge of hazardous substances into the stormwater or wastewater systems unless permitted by a network utility operator.<br>Compliance can be achieved using precautionary methods, including clearly identified stormwater grates and access holes, roofing, sloped pavements, interceptor drains, containment and diversion valves, oil-water separators, sumps and similar systems. |
| 5.5 Spill containment | Any parts of the site where a hazardous substance spill may occur must be serviced by a suitable spill containment system that is:<br>(a) constructed from impervious materials resistant to the hazardous substances used, stored, manufactured, mixed, packaged, loaded, unloaded or otherwise handled on the site, and for liquid hazardous substances<br>(i) able to contain the maximum volume of the largest tank present plus an allowance for stormwater or fire water, and<br>(ii) for drums or other smaller containers, able to contain half of the maximum volume of substances stored, plus an allowance for stormwater or fire water, and<br>(b) able to prevent any spill or other unintentional release of hazardous substances, and any stormwater or fire water that has become contaminated, from entering the stormwater drainage system, unless permitted by a network utility, and<br>(c) able to prevent any spill or other unintentional release of hazardous substances, and any stormwater or fire water that has become contaminated, from discharging into or onto land or water (including drainage systems, groundwater and potable water supplies) unless permitted by a resource consent.<br>Suitable means of compliance include graded floors and surfaces, bunding, roofing, sumps, fire-water catchments, overfill protection and alarms, and similar systems. |
| 5.6 Stormwater | All stormwater grates on the site are clearly labelled “Stormwater Only” |
| 5.7 Wash down areas | Any part of the site where vehicles, equipment or containers that are, or may be, contaminated with hazardous substances are washed must be designed, constructed and managed to prevent any contaminated wash water from:<br>(a) entry or discharge into the stormwater drainage or the wastewater system unless permitted by a network utility operator, and<br>(b) discharge into or onto land or water (including groundwater and potable water supplies) unless permitted by resource consent.<br>Suitable means of compliance include roofing, sloped pavements, interceptor drains, containment and diversion valves, oil-water separators and sumps. |
| 5.8 Petroleum Storage tanks | Tanks for petroleum product storage must be designed, constructed and managed to prevent leakage and spills, and adverse effects on people, ecosystems and property. Storage tanks are:<br>(a) constructed from impervious materials resistant to the hazardous substances to be stored, and<br>(b) serviced by a leak detection or monitoring system that is capable of detecting a failure or breach in the structural integrity in the primary containment vessel. |
| 5.9 Waste management | Waste containing hazardous substances is stored in a manner that prevents:<br>(a) exposure to ignition sources, and the corrosion or other alteration of the containers used for the storage of the waste, and<br>(b) the unintentional release of the waste.<br>Wastes are to be disposed of to authorised facilities. |
| 5.10 Records | Records are kept of all types and quantities of hazardous substances and wastes produced or stored on the site. Records note method of waste disposal. |
| 5.11 Pipelines | Any pipeline is designed, constructed and operated in a manner that avoids the occurrence of any off-site adverse effects from the activity on people, ecosystems, physical structures and other parts of the environment.<br>Any pipeline is managed to avoid the unintentional release of the hazardous substances and the accumulation of any liquid or solid spills or fugitive vapours or gases in enclosed areas, that might have adverse effects on people, ecosystems, built structures. |