

Contents

Section 16: Hazardous Substances

16.1	Introduction.....	16-1
16.2	Issues.....	16-2
16.3	Objective and Policies	16-4
16.4	Anticipated Environmental Results.....	16-7
16.5	Methods of Implementation	16-8
16.6	Reasons for Rules	16-9
16.7	Rules – Hazardous Substances.....	16-11
16.8	Assessment Matters.....	16-14

Section 16 Appendices

Appendix 16-1: Hazardous Substances Classification and Use	16-17
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Section 16: Hazardous Substances

16.1 Introduction

Many activities in the District involve the use of substances which are critical to manufacturing and construction, primary production or in day to day domestic activities. Examples include cleaning solvents, agrichemicals, fuel and explosives. However, the composition of these substances is such that they can be “hazardous” to the environment in that they have the potential to impair human, plant, or animal health, or to adversely affect the wider environment. These types of substances are commonly called “hazardous substances”.

Hazardous substances are necessary tools for many agricultural and industrial activities and some that are domestic. Hazardous substances of various kinds are in widespread use in the Ashburton District and are an essential part of everyday life. By their nature, hazardous substances carry an inherent risk of adverse effects, should an accident occur. The accidental or deliberate spillage, leak or disposal or inappropriate use of hazardous substances could adversely affect the District’s natural resources and primary production resources, and the health of humans, farm and domestic animals and flora and fauna. The presence of large quantities of hazardous substances may also adversely affect the amenity values of both the urban and rural areas, by their actual or potential adverse effects.

16.1.1 Regulatory Controls

The Hazardous Substances and New Organisms Act 1996 (HSNO) and Hazardous Substances regulations are the principal legislation controlling the introduction, manufacture, use, storage and disposal of hazardous substances. Substances are classified numerically according to their hazardous characteristics and the regulations and associated codes of practice and other instruments set specific baseline standards for storage, handling and emergency response for each class of substance and the facilities and activities involving them. HSNO has revoked earlier legislation, including the Dangerous Goods Regulations which the Council previously administered.

The Council has limited powers and responsibilities under HSNO, which is administered mainly by other agencies, particularly in terms of the use and application of hazardous substances in working situations. It should be noted that HSNO protects health and safety within the immediate environment of the facility or activity, whereas community issues and concerns must be addressed through the provisions of the Act via the Regional Policy Statement, Regional Plans and District Plans.

The New Zealand Standard NZS 8409:2004 sets out the requirements for the safe, responsible and effective management of agrichemicals by suppliers and users in New Zealand. Parts of this standard are used within the rules to ensure compliance for agrichemicals. Users of the Plan need to be aware that this document also provides guidance and controls for the management of agrichemicals beyond the provisions of the District Plan.

Regional and District Councils have functions for managing the effects of the use, storage, transport and disposal of hazardous substances, under the Act. Chapter 17 (p. 261) of the Regional Policy

[Click here to go back to start of Section 16: Hazardous Substances](#)

Statement sets out in more detail how those functions are shared between the Canterbury Regional Council and territorial local authorities in Canterbury. District councils in the Canterbury region are responsible for developing objectives, policies and rules relating to the control of the use of land for the prevention or mitigation of any adverse effects from any hazardous substances, except where they are controlled by the Canterbury Regional Council. In setting those objectives, policies and rules, the Council must ensure those provisions are consistent with the Act and HSNO, and also be mindful of other legislation associated with the control of hazardous substances.

16.1.2 Other Legislation

The Transport Act 1962 controls the transport of hazardous substances, through the Ministry of Transport's Land Transport Dangerous Goods Rule which is enforced by the NZ Police. Incompatible substances must be segregated, loads must be secured and commercial loads must be appropriately labelled. The Council has no involvement with the Rule, but can consider controlling routes for the transport of hazardous substances through its District Plan and resource consents for environmental effects reasons.

The Radiation Protection Act 1965 and the 1982 Regulations control radioactive materials. They are administered by the National Radiation Laboratory, a business unit of the Ministry of Health. The Council may control the location of activities where radioactive materials are present, to address local concerns.

The Building Act 1991 contains requirements relating to the storage and containment of Hazardous Substances. The Council applies these provisions through the building consent process, at which stage the requirements of the Building Code can be coordinated with District Plan considerations.

The Health and Safety in Employment Act 1992 addresses workplace safety and is administered by the Department of Labour's Occupational Safety and Health Division (OSH). Workplaces are required to have health and safety plans in place, which must be consistent with HSNO with respect to hazardous substances management and emergency response.

16.2 Issues

The manufacture, storage, transport and disposal of hazardous substances can result in adverse effects on human and natural environments, including amenity values, the safety of people and property, effects on land and soils, waterbodies or other parts of the environment.

The Council is required under the Act to control any actual or potential effects of the use or development of land. This includes the prevention and/or mitigation of any adverse effects that could arise from the manufacture, storage, transport or disposal of hazardous substances.

Hazardous substances of various kinds are in widespread use in the District and are an essential part of everyday life and many industries. People and operations in rural areas often need to store hazardous substances on site to carry out their activities efficiently. Common examples of hazardous substances are agrichemicals and animal remedies in the rural sector of the community, timber preservatives and strong acids and alkalis in the industrial and commercial sector, and garden sprays in the domestic sector. Other substances such as LPG, petroleum hydrocarbon fuels and lubricants,

[Click here to go back to start of Section 16: Hazardous Substances](#)

solvents, paints, pool chemicals and household cleaning agents are in widespread use across all sectors. Wastes generated by all sectors also contain hazardous substance residues, such as industrial processing wastes, packaging and containers, dead batteries and waste oil, paints and solvents, surplus agrichemicals and garden sprays.

Ashburton District is fortunate that many classes of hazardous substances are not used extensively in the District. Nevertheless, the Council would like to ensure that the manufacture, storage, transport or disposal of hazardous substances in the District is carried out in an appropriate manner and the provisions reflect this accordingly. In built up residential areas the amounts of hazardous substances that can be manufactured and stored is restricted compared with other areas of the District.

While the presence of hazardous substances in the community is generally accepted, there is potential for significant adverse effects to the environment if hazardous substances and their locations, storage, transport and disposal are not managed or controlled appropriately. The potential adverse effects if hazardous substances are spilled, leak or escape from their containment or are discharged into the environment in an uncontrolled manner by accident include:

- effects on human health or the health of farm stock and domestic animals;
- damage to plant crops, windbreaks, plantations, landscape planting and other vegetation, including natural flora and fauna;
- contamination of the food chain, including chemical residues in farm stock and crops;
- damage to the life-sustaining or aesthetic qualities of water and soil resources and ecosystems;
- effects on ancestral lands, sites and other taonga of value to Takata Whenua;
- aesthetic and health effects arising from the development, improvement or occupation of land contaminated by hazardous substances;
- devaluation of rural, residential, conservation and recreation amenity values of land that has been contaminated by hazardous substances;
- potential and actual risks and public concerns associated with the location of facilities and activities involving hazardous substances, with respect to residences, schools, conservation areas, recreational areas, waterbodies and other sensitive land use areas and sensitive environments;
- reverse sensitivity effects on rural or business land use involving hazardous substances, from residential and other more sensitive activities establishing in rural areas.

Hazardous substances are already subject to regulation under other legislation such as HSNO, and the additional controls included in the District Plan are for resource management purposes. The Council accepts that HSNO controls immediate effects on people's health and safety from the manufacture, use and storage of hazardous substances, and that specific legislation administered by other agencies primarily controls use in workplace situations, transport, building development, and radioactive substances. To this end, the District Plan focuses on matters that are not covered by other more specific legislation or the functions of the Canterbury Regional Council. Policies and rules are implemented to avoid hazardous substances being stored or disposed of in places where, if they spill or leak, serious environmental effects will occur and controls are imposed over the

[Click here to go back to start of Section 16: Hazardous Substances](#)

manufacture, storage and disposal of hazardous substances to protect the amenity values of areas and people's sense of well-being.

16.3 Objective and Policies

Objective 16.1: Management of Hazardous Substances

To ensure that adequate measures are taken to avoid, remedy or mitigate any adverse effects during the manufacture, storage, transport and disposal of hazardous substances to:

- human health,
- the health of livestock and other farm animals or domestic animals,
- the health of flora and fauna,
- the amenity of residential or other similarly sensitive areas,
- the natural environment, and
- the life-sustaining capacity and amenity values of waterbodies, land and soil resources.

Policy 16.1A

To control classes of hazardous substances which have the potential to cause adverse effects on the environment, recognising that the quantities of hazardous substances requiring control will vary depending on the proximity of sensitive activities, and the susceptibility and sensitivity of the surrounding environment to adverse effects from hazardous substances.

Policy 16.1B

To allow appropriate quantities and classes of hazardous substances to be stored to provide for land use activities that are consistent with the District Plan objectives and policies for those areas.

Policy 16.1C

To ensure hazardous substances are stored under conditions which reduce the risk of any leaks or spills contaminating land or water.

Policy 16.1D

To limit manufacturing and storage, and avoid disposing of hazardous substances near any of the following areas:

- Waterbodies or wetlands.
- Areas of outstanding natural features and landscapes.
- Significant ecological sites.
- Sites of particular heritage or cultural value.
- Popular recreational areas.
- Dwellings, other than a dwelling on the same site as the activity.

[Click here to go back to start of Section 16: Hazardous Substances](#)

Policy 16.1E

To promote the disposal of hazardous substances at facilities that are designed to dispose of hazardous substances safely and to avoid or mitigate any adverse effects on the environment of the disposal.

Policy 16.1F

To ensure parties who manufacture or store commercial quantities of hazardous substances have the means to dispose of hazardous substances and their containers without adversely affecting the environment.

Policy 16.1G

To promote the efficient management of the manufacture, storage, transport and disposal of hazardous substances through a co-ordinated approach between agencies responsible for the management of hazardous substances, and to liaise with other agencies involved in the management of hazardous substances in order to develop effective relationships with which to prevent or mitigate the adverse effects of the manufacture, storage, transport or disposal of these substances.

Policy 16.1H

To control the manufacture, storage, transport and disposal of hazardous substances so as to avoid, remedy or mitigate adverse environmental effects due to accidental spillages or poor management practices.

Policy 16.1I

To increase public awareness of the potential adverse environmental effects that may arise from the manufacture, storage, transport and disposal of hazardous substances.

Policy 16.1J

To work toward obtaining access to appropriate hazardous waste treatment and disposal facilities for residents and ratepayers of the District.

Explanation and Reasons

The objective and policies seek to minimise risks of adverse effects from hazardous substances. This is achieved through the District Plan provisions to manage the locations where larger quantities of hazardous substances are manufactured and stored, and to require the safe and secure containment of hazardous substances at all locations. This includes provisions for separation of hazardous substances from sensitive areas and sensitive activities e.g. near waterbodies or residential activities. The Council recognises however that the community transports, stores and disposes on many occasions very small quantities of hazardous substances, such as glue for wood work or pesticides for spraying home gardens. Accordingly, the Council has permitted the storage of some quantities of hazardous substances as of right subject to site standards to ensure the necessary environmental protection. The quantity permitted as of right is dependent on the nature of the particular substance and the "risk" it poses to the environment; and in addition, on how sensitive a particular environment is. For example, a built up residential area is considered to be more sensitive than an

[Click here to go back to start of Section 16: Hazardous Substances](#)

industrial area. Where quantities of specific hazardous substances exceed the limit set by the Council for the various zones, resource consent will be required.

Many activities use hazardous substances. The quantities stored are often sufficient to contaminate land and soil with significant adverse effects; therefore, the Plan provisions need to be practical to allow hazardous substances to be stored on site, but subject to conditions to protect the environment. Policies are implemented using rules relating to the quantities and conditions for manufacturing, storing and disposing of hazardous substances at any site. Resource consents are required where specified threshold quantity limits for hazard substances are exceeded, and/or specific site controls or other performance criteria are not complied with. Activities that comply with the performance criteria and do not exceed the specified quantity limit thresholds have permitted status in terms of the hazardous substances rules of the Plan.

The threshold quantity limits in Appendix 16-1 are a convenient measure to distinguish between small-scale activities where effects are likely to be minor, and larger scale activities that require resource consent. The classification system used in Tables 16-1 and 16-2 of the Appendix is based on the provisions of the HSNO legislation. The quantity limits have been established with regard to local conditions and requirements, and with due consideration to the HSNO controls, to national guidelines and procedures published and advocated by the Ministry of the Environment and the Environmental Risk Management Authority, to the Natural Resources Regional Plan, and to District Plans published by other territorial local authorities.

Some HSNO classes are not listed in Appendix 16-1 because they are not considered to have a significant hazard rating in the land-use planning context. In this case, no restrictions apply under the District Plan. However, many hazardous substances have more than one HSNO class or category. Where this is the case, the most restrictive class or category will be applied, as this recognises the possible extent of the health and safety risks associated with the substance.

The Council also considers that any new industrial processes that are involved in the production of hazardous substances, or any operations that mix different types of hazardous substances, should only be established in appropriate locations and have adequate operational safeguards to ensure protection to the public and the environment.

In making these provisions, the Council recognises that the use, transport, discharge and disposal of hazardous substances are controlled by other statutory authorities through legislation and associated controls and Standards including the HSNO Act 1996 and NZS8409:2004; and through the Canterbury Regional Council's Natural Resources Regional Plan.

A hazardous substance spilled into a water body can cause both immediate and delayed adverse effects to aquatic life and ecological, cultural, recreational and amenity values. Such a spill is also much harder to contain and clean up than when it is spilled on to land, and the effects may become widespread as contaminants are carried downstream or disperse over water surfaces. In cases of accidental spill, contingency measures would be required by both major users of hazardous substances, and the Council, so to avoid, remedy or mitigate adverse effects to people or the environment.

[Click here to go back to start of Section 16: Hazardous Substances](#)

The Council does not consider that any consent is necessary specifically for transportation of hazardous substances at the District level. At present there are controls under the Transport Act, the Explosives Act, and New Zealand Standards. Notwithstanding this, the Council will have an emergency procedure plan in place for accidental spillages. The District Council envisages that any strategic controls on transportation routes for hazardous substances would need co-ordination regionally as many routes cross District boundaries and transportation bases of companies carrying hazardous substances generally occur in the larger centres such as Christchurch.

The Council recognises that the safe disposal of many types of hazardous substances is difficult. Accordingly, the Council will promote safer disposal practises through public education and advice. This will include assistance in determining whether hazardous substances can be reused or recycled. Where recycling is not possible, Council can advise whether the hazardous substances could be co-disposed of at appropriate sites at Timaru or Christchurch. If the hazardous substance can not be disposed of in this way, the Council will advise as to how such substances can be stored and may be able to assist in the storage of such substances. Any disposal of hazardous substances is likely to be subject to the requirements of the Canterbury Regional Council.

The control of hazardous substances will only be made possible with a good information base, research, and with the co-operation of people of the District. Accordingly, the provision of a hazard inventory, liaison with other agencies and education or advisory methods will be considered as items to be resourced, when necessary, through the Annual Plan process.

The Council will work with the Canterbury Regional Council and other District Councils, to develop solutions for disposing of hazardous substances and hazardous waste, including empty hazardous substance containers. The Council will also encourage manufacturers and users of hazardous substances and generators of hazardous wastes to participate in identifying and developing waste disposal options.

The Canterbury Regional Council, in conjunction with the other Canterbury local authorities, has developed the Canterbury Regional Hazardous Waste Management Strategy for dealing with hazardous waste. It provides the basis for a co-ordinated region wide approach to the minimisation and management of hazardous waste. This strategy has been developed to achieve integrated and environmentally sound management of hazardous wastes and outlines the councils' current commitment to the improvement of the management of hazardous waste.

16.4 Anticipated Environmental Results

- The avoidance, remedying or mitigation of adverse effects from the storage of hazardous substances in the District, with adverse effects of hazardous substances on the environment minimised.
- Reduced instances of land or waterbodies becoming contaminated from hazardous substances.
- Hazardous substances collected and disposed of safely and access to facilities for the treatment and disposal of hazardous substances.
- An up-to-date inventory of the types, amounts and patterns of hazardous substances manufactured, stored, transported and disposed of in the District.

[Click here to go back to start of Section 16: Hazardous Substances](#)

- The implementation, in conjunction with other affected parties, of emergency response procedures, if there is ever a risk to people or property from hazardous substances in the District.

16.5 Methods of Implementation

Through the District Plan:

- Provision of rules and the use of performance standards to control the manufacture, storage transport and disposal of hazardous substances in the District.

Through Other Legislation:

- Use enforcement provisions under the Act where hazardous substances are manufactured, stored, transported or disposed of in such a way that has or is likely to be either noxious, dangerous, offensive or objectionable to such an extent that it has or is likely to have an adverse effect on the environment.
- NZS8409:2004 Management of Agrichemicals will be used as part of the means to achieve the policies in relation to agrichemicals and to enable consideration of best management practices, use relevant Codes of Practice, NZ Standards, and requirements of other regulations.

Through the Council's LTCCP process:

- The Council will prepare an emergency response plan, in conjunction with other appropriate agencies, for a major spill of a hazardous substance that directly threatens the public and the environment;

Through Advocacy and Liaison, the Council will:

- advise the public on how to dispose of hazardous substances and in some circumstances may assist the public in the storage of such substances;
- set up a collection point or collection points for hazardous substances from the public and where possible the Council will recycle hazardous substances stored at selected facilities;
- continue to advocate for a co-ordinated approach to hazardous waste disposal in Canterbury as a signatory to the Canterbury Regional Hazardous Waste Management Strategy.
- support initiatives such as the Agrecovery programme for disposal of agrichemical containers.
- in conjunction with the Canterbury Regional Council, will work towards establishing and regularly updating a hazardous substances inventory for the Ashburton District, which will be a record of all amounts and patterns of hazardous substance within the District;
- liaise with the Canterbury Regional Council and other agencies involved in the management of hazardous substances;
- liaise with the Canterbury Regional Council, Government Departments, and Crown Research Institutes to ensure that any research from these organisations on disposal, transportation and storage of hazardous substances and their effects on the environment can be used to make sound planning decisions;

[Click here to go back to start of Section 16: Hazardous Substances](#)

- provide information and advice to manufacturers, importers, contractors and the public that use hazardous substances, including agricultural chemicals, so as to promote the correct procedures for the manufacture, storage, disposal or transportation of hazardous substances, and alternatives to their use;
- advocate to both central governments departments and the Canterbury Regional Council regarding the development of methods and facilities to dispose of hazardous substances found in the District that presently cannot be disposed of.

16.6 Reasons for Rules

The District Plan provisions manage the effects of hazardous substances on the environment, including on amenity values. There are a large range of chemicals that are widely used in domestic households, commercial or industrial sites (i.e. household cleaners, medicines) that have not been included in Appendix 16-1, Table 16-1, but yet are known to be poisonous to humans, animals or plants. Given the use of these substances is usually in small quantities, Appendix 16-1, Table 16-2 has not specified these substances as requiring control within any zone. The Plan recognises that the use of hazardous substances is an every day part of many activities and that the use of these substances is adequately controlled by the Canterbury Regional Council and other legislation. The Plan rules allow sufficient quantities of hazardous substances to be stored on-site for such activities, as a permitted activity (no resource consent needed).

The quantity limits have been established with regard to local conditions and requirements, and with due consideration to the HSNO controls, to the New Zealand Standard NZS8409:2004 Management of Agrichemicals, to national guidelines and procedures published and advocated by the Ministry of the Environment and the Environmental Risk Management Authority, to the Natural Resources Regional Plan, and to District Plans published by other territorial local authorities. Where those quantities are exceeded, resource consent is required to ensure that the hazardous substances are appropriately controlled.

Many of the potential effects on health and safety of the use and storage of hazardous substances are addressed through other legislation and that the use of these substances is adequately controlled by the Canterbury Regional Council and other authorities. The District Plan complements this legislation by addressing the effects of hazardous substances on health and safety, on prevailing and anticipated amenity values, and the wider potential environmental impact of those substances. Users of agrichemicals are also strongly advised to adhere to the New Zealand Standard NZS8409:2004 Management of Agrichemicals, and in particular Section 4 and Appendix L of that document.

Council considers that it is important, for reasons of fire fighting and civil defence that it has knowledge of all sites that store hazardous substances.

The hazardous substances characterised in Appendix 16-1, Table 16-1 generally follow the HSNO provisions. There are also two categories of miscellaneous hazardous substances that have been listed. These are timber preservatives which have received public attention as a result of their potential adverse effects to the environment, and chlorinated solvents which can potentially contaminate groundwater unless managed carefully.

[Click here to go back to start of Section 16: Hazardous Substances](#)

The disposal of hazardous substances in the District is a non-complying activity. Disposal does not include the application of hazardous substances in accordance with manufacturer's instructions. In these cases, effects on the environment are likely to be minor.

The different zones, and activities permitted in these zones, had a considerable influence in the determining the quantities specified in Table 16-2. The reasons for this are given below:

Residential and Open Space Zones and the Residential and Recreational Areas of the Aquatic Park Zone

The residential zones cater for predominantly residential activities. Experience has shown that the storage or disposal of hazardous substances is acceptable when used for domestic use or for limited use for home occupations. For these reasons the permitted quantities of hazardous substances for storage is limited.

Similarly, the open space zones are specific areas designed for public recreation; these areas are not considered appropriate or compatible with the storage of any significant quantities of hazardous substances.

Business and Rural Zones and the Commercial Area of the Aquatic Park Zone

The Business Zones have historically been the zones where hazardous substances are stored (i.e. warehouses or retail shops), or are used in manufacturing or industry. Similarly, the Rural Zones are dominated by farming activities that will store hazardous substances such as agrichemicals. In addition, the rural areas by nature do not have high residential dwelling densities. For these reasons the quantities of hazardous substances stored as-of-right in Table 16-2 are generally larger for the Business and Rural Zones.

Generally any applications for resource consents for quantities exceeding those in Column A of Table 16-2 will be treated as non-notified applications. The Council will give consideration to notifying any applications if the storage of the hazardous substances is in close proximity to residential dwelling(s) or occurs in sensitive areas which have, for example, specific ecological values.

Irrespective of storage quantities provided in this Plan, the Council considers that the manufacturing of hazardous substances will require resource consent. This is because the manufacturing of hazardous substances is often a complex process which involves using large quantities of such substances.

[Click here to go back to start of Section 16: Hazardous Substances](#)

16.7 Rules – Hazardous Substances

16.7.1 Permitted Activities

The following activities shall be Permitted Activities, provided that they comply with all of the Site Standards specified below:

- a) the storage of hazardous substances which are not identified in Appendix 16-1, Table 16-1;
- b) the storage of hazardous substances identified in Appendix 16-1, Table 16-1, in quantities not exceeding those specified in Column A of Table 16-2 for the relevant zone;

16.7.2 Restricted Discretionary Activities

The following activities shall be Restricted Discretionary Activities with the exercise of the Council's discretion being restricted to the matter(s) specified in the standard which is not complied with:

- a) any activity specified as a permitted activity which does not comply with anyone or more of the Site Standards specified below.

16.7.3 Discretionary Activities

The following activities shall be Discretionary Activities:

- a) the storage of hazardous substances identified in Appendix 16-1, Table 16-1, in quantities exceeding those specified in Column A, but not exceeding those specified in Column B (where specified), of Table 16-2 for the relevant zone;

Note: Where Column B of Table 16-2 is denoted by a dash (-), the storage of hazardous substances identified in Schedule 1, in any quantities exceeding those specified in Column A of Table 16-1 shall be a Discretionary Activity.

- b) The manufacture of any hazardous substance, as either a product or by-product.

16.7.4 Non-Complying Activities

The following activities shall be Non-Complying Activities:

- a) The storage of hazardous substances identified in Appendix 16-1, Table 16-1 in quantities exceeding those specified in Column B of Table 16-2 for the relevant zone.
- b) The use of any land or facilities to dispose of any hazardous substance.

Note: this clause does not apply to the disposal of any hazardous substance by use of it in accordance with the manufacturer's instructions

16.7.5 Notification / Consultation / Notes

Resource consents in relation to the following matters shall not be notified and the written approval of affected persons need not be obtained:

Storage and loading / unloading areas Site Standard 16.7.7
Exceeding Column A quantity limits in Business and Rural zones

Notes:

- District-Wide Rules may also apply in addition to any relevant Hazardous Substances Rules. If any one or more of the District-Wide Rules apply, the activity may require consent in respect of those rules.
- In addition to compliance with the Hazardous Substances rules of the District Plan, activities involving hazardous substances may also need to comply with the Canterbury Regional Council plans and rules for hazardous substances and the provisions contained within HSNO. Further enquiries should be made with the Canterbury Regional Council.
- Readers are advised to be familiar with the storage provisions of “New Zealand Standard 8409:2004 Management of Agrichemicals” and in particular Section 4 and Appendix L of that Standard.
- Where a substance has more than one HSNO subclass the quantity limit for storage as a permitted activity will be based on the most restrictive threshold in Appendix 16-1, Table 16-2 for that substance.

16.7.6 Site Standards

16.7.7 Storage and loading / unloading areas

- a) All areas or parts of sites where solid and/or liquid hazardous substances (including waste) are stored, loaded or unloaded shall be sealed, and contained.
- b) Any area used to store any hazardous substance or goods treated with the hazardous substance (except for Liquefied Petroleum Gas (LPG)) shall have impervious surface which:
 - Is separated from the bare ground;
 - Is designed to contain any runoff of the substance or water contaminated with the substance;
 - Has a minimum area able to be used to contain the hazardous substance amounting to no less than 110% of the total volume of any stored hazardous substance where the area is roofed;
 - Has a minimum area able to be used to contain the hazardous substance amounting to no less than 120% of the total volume of any stored hazardous substance where the area is unroofed;
 - Has a containment system designed in such a way as to ensure containment of any hazardous substance that spills due to the collapse of any container (e.g. tank), and the containment from the direct leakage from any container;

[Click here to go back to start of Section 16: Hazardous Substances](#)

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- Has a containment system sealed with impervious materials that are resistant to breakdown from the particular hazardous substances which they are designed to contain;
 - Has a containment system that is maintained as and when necessary.
- c) The hazardous substance is stored in a sealed container which:
- Is made of a sound material that will not be weakened or corroded by the hazardous substance being stored in it;
 - Is permanently labelled with the name of the contents; and
 - Contains only one type of hazardous substance;
- d) The hazardous substance is not stored:
- Within any area identified on the planning maps as being at risk from a natural hazard (flooding, coastal erosion, coastal inundation, earthquake),
 - Within 20m of any waterbody (excluding aquifers) or waterway,
 - Within any area of Significant Conservation Value (as shown on the planning maps),
 - Within any area identified in Section 2 Takata Whenua as a Statutory Acknowledgement area, Silent File area, Wāhi Taonga site, Wāhi Taonga Management Area, or Mahinga Kai site.
- e) The hazardous substance is not stored within 20 metres of any boundary with a site containing a Sensitive Activity (except where the sensitive activity occurs on the same site as the storage of the substance), or the boundary of any Residential Zone.
- f) The storage of petrol or diesel in above ground tanks in Rural Zones shall be exempt from Site Standards 1a), 1b) and 1c) providing the tank is at least 20m away from any natural water course or water race.
- g) The storage of diesel in above ground tanks in association with residential activities shall be exempt from Site Standards 1a), 1b) and 1c).
- h) The storage, loading and unloading of agrichemicals in Residential and Open Space Zones in containers with volumes of 20 litres or less shall be exempt from Site Standards 1a), 1b) and 1c).
- i) The storage of transformer oil in transformers, up to a maximum volume of 1000 litres in any one transformer, shall be exempt from Site Standards 1a), 1b) and 1c).
- j) The storage, loading and unloading of hazardous substances in service stations shall be exempt from Site Standards 1a) and 1b), provided that the service station complies with the Code of Practice for the Design, Installation and Operation of Underground Petroleum Storage Systems published by Occupational Safety and Health Service, 1992.

- k) Any storage tanks designed and/or used for the storage of LPG in quantities exceeding 250 litres shall be located at least 30 m from any boundary with either a Residential Zone or the Residential Area of the Aquatic Park Zone.
- l) Any storage of radioactive material, including radiation machines, shall comply with conditions set by the National Radiation laboratory.

16.7.8 Disposal

- a) Collection of hazardous substances for disposal purposes, or for subsequent reuse, shall be in containers that seal and contain the hazardous substances collected and that have contents clearly identified.

16.8 Assessment Matters

In considering whether or not to grant consent or impose conditions, the Council shall have regard to, but not be limited by, the following assessment matters:

- a) The extent to which the proposed activity and the proposed site poses a risk to the environment, and in particular:
 - the sensitivity of the surrounding natural and physical environment. Depending on the scale of the proposal this may include separation distances to people-sensitive activities (particularly activities such as schools, rest homes, hospitals, shopping centres etc) or to sensitive natural resources (e.g. aquifers, streams, wetland, habitats);
 - the number of people potentially at risk from the site;
 - the risk to adjacent property;
 - cumulative effects of hazardous facilities in the area;
 - site drainage and off site infrastructure (e.g. stormwater, sewer type and capacity);
 - transportation safety - including method of transportation, quantities and types of hazardous substances transported, and proposed transport routes.
- b) The risk of flooding or other natural hazards on the site, the possible effects of the site being affected by a natural hazard and the methods for avoiding or mitigating these effects.
- c) The extent to which the proposed activity can avoid or mitigate any undue risk. Methods can include site layout, site management and spill contingency planning, transport methods and routes, monitoring and maintenance schedules.
- d) The ability of the proposed activity to be established at an alternative location or for the activity to undertake alternative methods, when it is likely that an activity will result in any significant adverse effects on the environment.
- e) The extent to which the proposed site is accessible from the major roading network to avoid heavy traffic volumes in local roads (particularly residential local roads); and the extent to which the proposed site's entry and exit points may pose a problem with existing intersections.

[Click here to go back to start of Section 16: Hazardous Substances](#)

- f) Any other matters that may need conditions to ensure that particular measures are undertaken so that any risk posed by the proposal is avoided or satisfactorily mitigated.

Section 16 Appendices

[Click here to go back to start of Section 16: Hazardous Substances](#)

Appendix 16-1: Hazardous Substances Classification and Use

The full description of HSNO classes, sub-classes and categories as well as explanations of terms used are contained in the Hazardous Substances Regulations. Detailed information on the application of the HSNO classification system to individual substances is available from the Environmental Risk Management Authority (ERMA).

The Tables in this Appendix are intended only for defining the status of a proposed land use activity under the Act, and not for any purpose under HSNO or other legislation.

It is important to note that:

- A number of HSNO classes or sub-classes that do not have a significant hazard rating in the land-use planning context are omitted from the Tables.
- Where a substance has more than one HSNO subclass applied the quantity limit for storage as a permitted activity will be based on the most restrictive threshold for that substance in Table 16-2.
- Examples of common substances are given only as an indication of substances with hazardous characteristics that may be associated with land use in the District.

Table 16-1 below sets out a description of the classification of hazardous substances, whilst Table 16-2 sets out the quantity limits for each type of hazardous substance.

Table 16-1: Classification of Hazardous Substances

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/ Category	Characteristics	Health and Safety Hazard ¹
Explosive Substances	Nitrate mixtures, nitro compounds, chlorate mixtures, gunpowder, or nitro compound adapted and exclusively used in the preparation or manufacture of cartridges for small arms, or for flares; ammunition/detonators (excluding those purchased for personal sporting or recreational small arms use)	1.1	Substances and articles that have a mass explosion hazard.	Fire/explosion (High hazard)
		1.2	Substances and articles that have a projection hazard but not a mass explosion hazard.	Fire/explosion (Medium hazard)
		1.3	Substances and articles that have a fire hazard and either a minor blast hazard or a minor projection hazard or both.	Fire/explosion (Low hazard)
		1.5	Very insensitive substances that have a mass explosion hazard.	Fire/explosion (Low hazard)
Flammable gases	LPG, acetylene, hydrogen, methane	2.1.1A	a) Ignitable when in a mixture of 13% or less by volume with air; or b) Has a flammable range with air of at least 12%, regardless of the lower flammability limit.	Fire/explosion (High hazard)
		2.1.2A Flammable Aerosols	An aerosol comprising 45% or more by mass of flammable ingredients.	Fire/explosion (High hazard)
		LPG		Fire/explosion (Medium hazard)
Flammable liquids	Liquid fuels, solvents, adhesives etc: Petrol, ethyl alcohol, methyl alcohol, Isopropyl alcohol, acetone, benzene, toluene, butylamine, MIBK	3.1A	A flash point of less than 23°C and an initial boiling point of less than or equal to 35°C.	Fire/explosion (Very high hazard)
		3.1B	A flash point of less than 23°C and an initial boiling point of greater than 35°C.	Fire/explosion (Medium hazard)

¹ Source: Land use Planning Guide for Hazardous Facilities Appendix A: HFSP Rating Criteria for Hazardous Substances, Ministry for the Environment.

[Click here to go back to start of Section 16: Hazardous Substances](#)

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/Category	Characteristics	Health and Safety Hazard ¹
	Kerosene, styrene monomer, cyclohexanene, turpentine, butyl methacrylate, chlorobenzene, ethoxyethanol Diesel, petroleum oils	3.1C	A flash point of greater than or equal to 23°C but less than or equal to 60°C.	Fire/explosion (Medium hazard)
		3.1D	A flash point of greater than 60°C but less than or equal to 93°C.	Fire/explosion (Low hazard)
Liquid desensitised explosives	Nitroglycerine mixture/Solution Nitrocellulose solution	3.2A 3.2B 3.2C	a) A substance that: (i) is listed as a liquid desensitized explosive and is assigned Packing Group I, II or III in the UN Model Regulations; or b) A liquid desensitised explosive that: (i) is formed from an explosive of Class I by adding a desensitizing agent to form a liquid that no longer meets the threshold for Class I; and (ii) is not listed in the UN Model Regulations and is not assigned a Packing Group.	Fire/explosion (High hazard)
Flammable solids – readily combustible solids and solids that may cause fire through friction	Red phosphorus, ammonium picrate, picric acid, monomethylamine nitrate, nitrocellulose, trinitrobenzene, magnesium and aluminium powders Alkali metals e.g. sodium, potassium, lithium, calcium, magnesium, metal hydrides, metal carbides	4.1.1A	A substance that burns rapidly or the reaction spreads rapidly or may cause fire through low friction in the relevant tests of the UN Manual of Tests and Criteria.	Fire/explosion (Medium hazard)
		4.1.1B	A substance that has lower ratings than 4.1.1A in the relevant tests of the UN Manual of Tests and Criteria.	Fire/explosion (Low hazard)

[Click here to go back to start of Section 16: Hazardous Substances](#)

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/Category	Characteristics	Health and Safety Hazard ¹
Self-reactive substances	Azocarbamides, benzene sulphohydrazine, diazonium salts	4.1.2A 4.1.2B	A thermally unstable substance that propagates a detonation or rapid deflagration or violent effect or thermal explosion in the relevant tests of the UN Manual of Tests and Criteria.	Fire/explosion (High hazard)
		4.1.2C 4.1.2D	A substance with lower ratings than the above two categories in the relevant tests.	Fire/explosion (Medium hazard)
		4.1.2E 4.1.2F 4.1.2G	A substance with even lower ratings than the above two categories in the relevant tests.	Fire/explosion (Low hazard)
Solid desensitised explosives	Nitroglycerine – solid, desensitised	4.1.3A 4.1.3B 4.1.3C	a) A substance with one of the specified UN serial numbers listed in the UN Model Regulations; or b) A solid desensitised explosive that is formed from an explosive of Class I by adding a desensitising agent to form a solid substance that no longer meets the threshold for Class I.	Fire/explosion (High hazard)

[Click here to go back to start of Section 16: Hazardous Substances](#)

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/Category	Characteristics	Health and Safety Hazard ¹
Spontaneously combustible substances	A variety of metallic, organic and inorganic compounds and mixtures	4.2A Spontaneously combustible and pyrophoric substances	a) A solid substance that does not meet the criteria for subclass 4.1.2, but ignites within 5 minutes on contact with air under the relevant test conditions in the UN Manual of Tests and Criteria; or b) A substance that does not meet the criteria for subclass 4.1.2, but is a liquid which ignites or chars the filter paper under the relevant test conditions.	Fire/explosion (High hazard)
		4.2B Spontaneously combustible and self- heating substances	A substance that does not meet the criteria for subclass 4.1.2 but meets specified criteria under the relevant test conditions.	Fire/explosion (High hazard)
		4.2C Spontaneously combustible and self- heating substances	A substance that does not meet the criteria for subclass 4.1.2, which, depending on quantity, meets specified criteria under the relevant test conditions.	A substance that does not meet the criteria for subclass 4.1.2, which, depending on quantity, meets specified criteria under the relevant test conditions.

[Click here to go back to start of Section 16: Hazardous Substances](#)

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/ Category	Characteristics	Health and Safety Hazard ¹
Solids that emit flammable gas when in contact with water	Compounds derived from reactive metals e.g. compounds of aluminium, calcium, lithium, magnesium, potassium, phosphorus, sodium	4.3A	a) A substance that emits a gas that ignites when a small quantity of the substance is brought into contact with water; or b) A substance that reacts readily with water at ambient temperatures such that the rate of evolution of flammable gas is >10 litres/kg over any 1 minute.	Fire/explosion (High hazard)
		4.3B	A substance that reacts readily with water at ambient temperatures such that the maximum rate of evolution is >20 litres/kg per hour.	Fire/explosion (High hazard)
		4.3C	A substance that reacts slowly with water at ambient temperatures so that the maximum rate of evolution of flammable gas is >1 litre/kg per hour.	Fire/explosion (Medium hazard)

[Click here to go back to start of Section 16: Hazardous Substances](#)

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/ Category	Characteristics	Health and Safety Hazard ¹
Oxidising substances – liquids or solids	Water treatment chemicals e.g. pool chlorine granules	5.1.1A	<ul style="list-style-type: none"> a) A substance listed as 5.1 in the UN Model Regulations and assigned Packing Group I; or b) A solid that when mixed with dry cellulose either spontaneously ignites or exhibits a mean burning time less than that of a specified reference material; or c) A liquid that when mixed with dry cellulose forms a mixture that either spontaneously ignites or exhibits a mean pressure rise time less than that of a specified reference material. 	Fire/explosion (High hazard)
	Chromates, bromates, chlorates, chlorites, nitrates, permanganates	5.1.1B	<ul style="list-style-type: none"> a) A substance listed as 5.1 in the UN Model Regulations and assigned Packing Group II; or b) A solid that does not meet the criteria of 5.1.1A and that when mixed with dry cellulose forms a mixture that exhibits a mean burning time equal to or less than a specified reference material; or c) A liquid that does not meet the criteria of 5.1.1A and that when mixed with dry cellulose forms a mixture that exhibits a mean pressure rise time less than or equal to that of a specified reference material. 	Fire/explosion (High hazard)

[Click here to go back to start of Section 16: Hazardous Substances](#)

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/ Category	Characteristics	Health and Safety Hazard ¹
		5.1.1C	<ul style="list-style-type: none"> a) A substance listed as 5.1 in the UN Model Regulations and assigned Packing Group III; or b) A solid that does not meet the criteria of 5.1.1A or B and that when mixed with dry cellulose forms a mixture that exhibits a mean burning time equal to or less than that of a specific reference material; or c) A liquid that does not meet the criteria of 5.1.1A or B and that when mixed with dry cellulose forms a mixture that exhibits a mean pressure rise time less than or equal to that of a specified reference material. 	Fire/explosion (Medium hazard)
Oxidising substances – gases	Oxygen gas	5.1.2A	<ul style="list-style-type: none"> a) A gas that is listed as 5.1 in the UN Model Regulations; or b) A gas that causes or contributes to combustion of other material at a faster rate than air. 	Fire/explosion (High hazard)
Organic Peroxides	Any organic peroxide	5.2A 5.2B	A substance that propagates a detonation or rapid deflagration or violent effect or thermal explosion in the relevant tests of the UN Manual of Tests and Criteria.	Fire/explosion (High hazard)
		5.2C 5.2D	A substance with lower ratings than 5.2A or B in the relevant tests.	Fire/explosion (Medium hazard)

[Click here to go back to start of Section 16: Hazardous Substances](#)

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/Category	Characteristics	Health and Safety Hazard ¹
Toxic substances	A wide range of industrial and commercial chemicals including compounds derived from arsenic, cadmium, copper, chromium, lead, nickel, mercury (including amalgams), zinc. Cyanides, methyl bromide, acrylamide, phenols, chlorophenols, aniline, oxalates	6.1A	Oral toxicity: LD50 of less than or equal to 5 mg/kg Dermal toxicity: LD50 of less than or equal to 50 mg/kg Inhalation toxicity (gas): LC50 of less than or equal to 100 ppm Inhalation toxicity (vapour): LC50 of less than or equal to 0.5 mg/l Inhalation toxicity (dust/mist): LC50 of less than or equal to 0.05 mg/l	Human health (High hazard)
		6.1B	Oral toxicity: LD50 of greater than 5 mg/kg but less than or equal to 50 mg/kg Dermal toxicity: LD50 of greater than 50 mg/kg but less than or equal to 200 mg/kg Inhalation toxicity (gas): LC50 of greater than 100 ppm but less than or equal to 500 ppm Inhalation toxicity (vapour) LC50 of greater than 0.5 mg/l but less than or equal to 2.0 mg/l Inhalation toxicity (dust/mist) LC50 of greater than 0.05 mg/l but less than or equal to 0.5 mg/l	Human health (High hazard)

[Click here to go back to start of Section 16: Hazardous Substances](#)

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/Category	Characteristics	Health and Safety Hazard ¹
		6.1C	<p>Oral toxicity: LD50 of greater than 50 mg/kg but less than or equal to 300 mg/kg</p> <p>Dermal toxicity: LD50 of greater than 200 mg/kg but less than or equal to 1000 mg/kg</p> <p>Inhalation toxicity (gas): LC50 of greater than 500 ppm but less than or equal to 2500 ppm</p> <p>Inhalation toxicity (vapour) LC50 of greater than 2.0 mg/l but less than or equal to 10.0 mg/l</p> <p>Inhalation toxicity (dust/mist) LC50 of greater than 0.5 mg/l but less than or equal to 1.0 mg/l</p>	Human health (Medium hazard)
Radioactive material		N/A ²		
Corrosive substances	<p>Acids e.g. nitric, sulphuric, hydrochloric, hydrofluoric acids; trichloro acetic acid.</p> <p>Alkalis e.g. sodium, potassium and lithium hydroxides, zinc chloride, zirconium tetrachloride, sulphur chlorides, silicon tetrachloride, phosphorus pentoxide, ferric chloride, phenolsuphonic acid, hydroxylamine sulphate, hexyltrichlorosilane, ethanolamine</p>	8.2A	Data indicate irreversible destruction of dermal tissue following brief exposure.	Human health (High hazard)
		8.2B	Data indicate irreversible destruction of dermal tissue following moderate exposure.	Human health (Medium hazard)
		8.2C	Data indicate irreversible destruction of dermal tissue following lengthy exposure (up to four hours).	Human health (Low hazard)

² Radioactive substances are controlled under the Radiation Protection Act by the National Radiation Laboratory of the Ministry of Health.

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/Category	Characteristics	Health and Safety Hazard ¹
Ecotoxic substances	Variety of organic and inorganic compounds, mixtures and materials that may or may not be classified in other HSNO categories	9.1A Substances that are very ecotoxic in the aquatic environment	Acute aquatic toxicity value ³ of less than or equal to 1 mg/l	Environment (High hazard)
		9.1B Substances that are ecotoxic in the aquatic environment	Chronic aquatic toxicity ⁴ of less than or equal to 1 mg/l and a) acute aquatic toxicity value of greater than 1 mg/l but less than 10 mg/l; and b) not rapidly degradable or is bioaccumulative, or is not rapidly degradable and is bioaccumulative.	Environment (Medium hazard)
		9.1C Substances that are harmful in the aquatic environment	Chronic aquatic toxicity of less than or equal to 1 mg/l and: a) acute aquatic toxicity value of greater than 10 mg/l but less than 100 mg/l; and b) not rapidly degradable or is bioaccumulative or, is not rapidly degradable and is bioaccumulative.	Environment (Medium hazard)

³ 'Acute aquatic toxicity value' means the lowest value expressed in units of milligrams of a substance per

- (a) fish LC50 data after a 96-hour exposure period; or
- (b) crustacean EC50 data after a 48-hour exposure period; or
- (c) algal, or other aquatic plant EC50 data after a 72-hour exposure period.

⁴ 'Chronic aquatic toxicity' means the lowest value expressed in units of milligrams of a substances per litre of water from chronic fish, crustacean, algal, or other aquatic plant NOEC (no observed effect concentration) data.

[Click here to go back to start of Section 16: Hazardous Substances](#)

Hazardous Substance Type	Examples (included but not limited to)	HSNO Class/ Category	Characteristics	Health and Safety Hazard ¹
		9.1D Substances that are slightly harmful in the aquatic environment or are otherwise designed for biocidal action	<ul style="list-style-type: none"> a) Acute aquatic toxicity value of greater than 1 mg/l but less than 100 mg/l, but does not meet classification criteria for 9.1A, 9.1B or 9.1C; or b) Chronic aquatic toxicity value is less than or equal to 1 mg/l but does not meet classification criteria for 9.1B or 9.1C; or c) Not rapidly degradable and is bioaccumulative but does not meet classification criteria for 9.1A, 9.1B or 9.1C. 	Environment (Low hazard)

[Click here to go back to start of Section 16: Hazardous Substances](#)

Table 16-2: Quantity Limits for Hazardous Substances**Residential and Open Space Zones and the Residential and Recreational Areas of the Aquatic Park Zone**

Hazardous Substance Type	HSNO Class/ Category	Quantity Limit	
		Column A	Column B
Explosive substances	1.1	0 kg/litres	0 kg/litres
	1.2, 1.3	15 kg/litres	15 kg/litres
	1.5	15 kg/litres	15 kg/litres
Flammable gases	LPG	300 kg	300 kg
	2.1.1A, 2.1.2A	100 kg	250 kg
Flammable liquids	3.1.A, 3.1B Aboveground storage ⁵	50 litres	1,200 litres
	3.1C, 3.1D (above ground storage)	1,200 litres	1,200 litres
	3.1D (underground storage)	1,200 litres	10,000 litres
Liquid desensitised explosives	3.2A, 3.2B, 3.2C	0 litres	0 litres
Flammable solids – readily combustible solids and solids that may cause fire through friction	4.1.1A, 4.1.1B	1 kg	1 kg
Self-reactive substances	4.1.2A, 4.1.2B, 4.1.2C, 4.1.2D, 4.1.2E, 4.1.2F, 4.1.2G	0 kg	0 kg
Solid desensitised explosives	4.1.3A, 4.1.3B, 4.1.3C	0 kg	0 kg
Spontaneously combustible substances	4.2A, 4.2B, 4.2C	1 kg	1 kg
Solids that emit flammable gas when in contact with water	4.3A, 4.3B, 4.3C	1 kg	1 kg
Oxidising substances – liquids or solids	5.1.1A	50 kg/litres	50 kg/litres
	5.1.1B, 5.1.1C	1 kg/litres	1 kg/litres
Oxidising substances – gases	5.1.2A	10 kg	250 kg
Organic Peroxides	5.2A, 5.2B, 5.2C, 5.2D, 5.2E, 5.2F, 5.2G	1 kg/litres	1 kg/litres

⁵ Not applicable to fuel tanks connected to motors of road vehicles, farm machinery or locomotives.

Hazardous Substance Type	HSNO Class/ Category	Quantity Limit	
		Column A	Column B
Toxic substances	6.1A, 6.1B, 6.1C, 6.1D <i>Including the following subgroups:</i>		
	Toxic gases (other than gases that are HSNO 'Controlled Substances')	0 kg	0 kg
	Timber treatment chemicals and Chlorinated hydrocarbons	20 litres	20 litres
	Any other toxic substances ⁶ (that are not otherwise Class 3 flammable liquids)	1 kg/litres	1 kg/litres
Agrichemicals	Agrichemicals	10 kg/litres	50 kg/litres
	Fumigants and Vertebrate Toxic Agents	0 kg (0m ³ gas)	0 kg (0m ³ gas)
Radioactive material	N/A	10 ¹³ bequerel per kilogram	10 ¹³ bequerel per kilogram
Corrosive substances	8.2A, 8.2B, 8.2C	10 kg/litres	10 kg/litres
Ecotoxic substances	9.1A	25 litres/kg	25 litres/kg
	9.1B, 9.1C, 9.1D	250 litres/kg	250 litres/kg

⁶ "Any other toxic substances" means any toxic substance of classes 6.1A, 6.1B, 6.1C and 6.1D that is not in any of the other subgroups of toxic substances.

Business Zones and the Commercial Area of the Aquatic Park Zone

Hazardous Substance Type	HSNO Class/ Category	Quantity Limit		
		Column A (Business Zones A, B and C, and Aquatic Park)	Column A (Business Zones D, E and F)	Column B
Explosive substances	1.1	2.5 kg/litres	50 kg/litres	50 kg/litres
	1.2	15 kg/litres	50 kg/litres	50 kg/litres
	1.3	75 kg/litres	100 kg/litres	100 kg/litres
	1.5	75 kg/litres	200 kg/litres	200 kg/litres
Flammable gases	LPG	7,500 kg	8,000 kg	40,000 kg
	2.1.1A	250 kg/litres	250 kg/litres	40,000 kg/litres
	2.1.2A	250 kg/litres	250 kg/litres	40,000 kg/litres
Flammable liquids	3.1.A, 3.1B Aboveground storage ⁷	3,000 litres	3,000 litres	-
	3.1.A, 3.1B Underground storage	50,000 litres	100,000 litres	-
	3.1C	3,000 litres	3,000 litres	-
	3.1D Underground storage	50,000 litres	50,000 litres	-
Liquid desensitised explosives	3.2A, 3.2B, 3.2C	30 litres	100 litres	100 litres
Flammable solids – readily combustible solids and solids that may cause fire through friction	4.1.1A, 4.1.1B	25 kg	50 kg	50 kg
Self-reactive substances	4.1.2A, 4.1.2B, 4.1.2C, 4.1.2D, 4.1.2E, 4.1.2F, 4.1.2G	5 kg	50 kg	50 kg
Solid desensitised explosives	4.1.3A, 4.1.3B, 4.1.3C	5 kg	50 kg	50 kg
Spontaneously combustible substances	4.2A	25 kg	50 kg	50 kg
	4.2B	25 kg	50 kg	50 kg
	4.2C	25 kg	500 kg	500 kg

⁷ Not applicable to fuel tanks connected to motors of road vehicles, farm machinery or locomotives.

Hazardous Substance Type	HSNO Class/ Category	Quantity Limit		
		Column A (Business Zones A, B and C, and Aquatic Park)	Column A (Business Zones D, E and F)	Column B
Solids that emit flammable gas when in contact with water	4.3A, 4.3B	25 kg	50 kg	50 kg
	4.3C	25 kg	500 kg	500 kg
Oxidising substances – liquids or solids	5.1.1A	1,000 kg/litres	1,000 kg/litres	-
	5.1.1B, 5.1.1C	25 kg/litres	200 kg/litres	-
Oxidising substances – gases	5.1.2A	250 kg	1,000 kg	-
Organic Peroxides	5.2A, 5.2B	25 kg/litres	25 kg/litres	-
	5.2C, 5.2D	25 kg/litres	25 kg/litres	-
	5.2E, 5.2F, 5.2G	25 kg/litres	25 kg/litres	-
Toxic substances	6.1A, 6.1B, 6.1C, 6.1D <i>Including the following subgroups:</i>			
	Toxic gases (other than gases that are HSNO 'Controlled Substances')	1,000 kg	1,000 kg	1,000 kg
	Timber treatment chemicals	20 litres	20 litres	20 litres
	Chlorinated hydrocarbons	200 litres	1,000 litres	1,000 litres
	Any other toxic substances ⁸ (that are not otherwise Class 3 flammable liquids)	200 kg/litres	200 kg/litres	200 kg/litres
Agrichemicals	Agrichemicals	500 kg/litres	5,000 kg/litres	-
	Fumigants and Vertebrate Toxic Agents	0 kg (0m ³ gas)	100kg (5m ³ gas)	100kg (5m ³ gas)
Radioactive material	N/A	1013 bequerel per kilogram	1013 bequerel per kilogram	1013 bequerel per kilogram
Corrosive substances	8.2A, 8.2B, 8.2C	1,000 kg/litres	1,000 kg/litres	-

⁸ "Any other toxic substances" means any toxic substance of classes 6.1A, 6.1B, 6.1C and 6.1D that is not in any of the other subgroups of toxic substances.

Hazardous Substance Type	HSNO Class/ Category	Quantity Limit		
		Column A (Business Zones A, B and C, and Aquatic Park)	Column A (Business Zones D, E and F)	Column B
Ecotoxic substances	9.1A	500 litres/kg	1000 litres/kg	1000 litres/kg
	9.1B	500 litres/kg	5,000 litres/kg	5,000 litres/kg
	9.1C	500 litres/kg	5,000 litres/kg	5,000 litres/kg
	9.1D	1,000 litres/kg	50,000 litres/kg	50,000 litres/kg

[Click here to go back to start of Section 16: Hazardous Substances](#)

Rural Zones

Hazardous Substance Type	HSNO Class/ Category	Quantity Limit	
		Column A	Column B
Explosive substances	1.1	2.5 kg/litres	-
	1.2	15 kg/litres	-
	1.3	75 kg/litres	-
	1.5	75 kg/litres	-
Flammable gases	LPG	600 kg	-
	2.1.1A	100 kg	-
	2.1.2A	100 kg	-
Flammable liquids	3.1.A, 3.1B Aboveground storage ⁹	3,000 litres	-
	3.1C	3,000 litres	-
	3.1D Aboveground storage ⁴	5,000 litres	-
	3.1D Underground storage	10,000 litres	-
Liquid desensitised explosives	3.2A, 3.2B, 3.2C	30 litres	-
Flammable solids – readily combustible solids and solids that may cause fire through friction	4.1.1A, 4.1.1B	1 kg	-
Self-reactive substances	4.1.2A, 4.1.2B, 4.1.2C, 4.1.2D, 4.1.2E, 4.1.2F, 4.1.2G	1 kg	-
Solid desensitised explosives	4.1.3A, 4.1.3B, 4.1.3C	5 kg	-
Spontaneously combustible substances	4.2A, 4.2B, 4.2C	25 kg	-
Solids that emit flammable gas when in contact with water	4.3A, 4.3B, 4.3C	1 kg	-
Oxidising substances – liquids or solids	5.1.1A	50 kg/litres	-
	5.1.1B, 5.1.1C	1 kg/litres	-
Oxidising substances – gases	5.1.2A	100 kg	-
Organic Peroxides	5.2A, 5.2B, 5.2C, 5.2D, 5.2E, 5.2F, 5.2G	1 kg/litres	-

⁹ Not applicable to fuel tanks connected to motors of road vehicles, farm machinery or locomotives.

Hazardous Substance Type	HSNO Class/ Category	Quantity Limit	
		Column A	Column B
Toxic substances	6.1A, 6.1B, 6.1C, 6.1D <i>Including the following subgroups:</i>		-
	Toxic gases (other than gases that are HSNO 'Controlled Substances')	10 kg	-
	Timber treatment chemicals and Chlorinated hydrocarbons	20 litres	-
	Any other toxic substances ¹⁰ (that are not otherwise Class 3 flammable liquids)	1 kg/litres	-
Agrichemicals	Agrichemicals	3,000 kg/litres	-
	Fumigants and Vertebrate Toxic Agents	100 kg	-
Radioactive material	N/A	10 ¹³ bequerel per kilogram	-
Corrosive substances	8.2A, 8.2B, 8.2C	10 kg/litres	-
Ecotoxic substances	9.1A	1,000 litres/kg	-
	9.1B, 9.1C	5,000 litres/kg	-

¹⁰ "Any other toxic substances" means any toxic substance of classes 6.1A, 6.1B, 6.1C and 6.1D that is not in any of the other subgroups of toxic substances.