

# Site and Storage Conditions for Toxic, Corrosive and Ecotoxic Substances

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## Introduction

This document sets out the site and storage conditions for substances with toxic, corrosive and/or ecotoxic properties (HSNO classes 6, 8 and/or 9), but no other hazardous properties.

The conditions set out in this document are incorporated into a group standard by reference, and form part of that group standard. A substance must comply with the conditions in this document as part of the group standard approval.

This document has been compiled from the following:

- Hazardous Substances (Emergency Management) Regulations 2001; and
- Hazardous Substances (Identification) Regulations 2001; and
- Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004.

Further information on the source of each condition is given in the section “Source Regulations and Controls”.

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# Site and Storage Conditions

## Part 1 Stationary Container Systems

### 1 Stationary Container Systems

Any stationary container system that contains, or is intended to contain, a hazardous substance must comply, to the extent applicable, with the controls for stationary container systems as set out in Parts 1 to 19 of Schedule 8 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, notwithstanding clause 1(1) of that Schedule.

## Part 2 Emergency Management

### 2 Duties of persons in charge of places in respect of emergency response plans and secondary containment

- (1) This clause applies to a place if—
- (a) there is held in it, or reasonably likely to be held in it on occasion, an aggregate quantity of hazardous substances of a particular hazard classification greater than the quantity specified in—
    - (i) Table 1 in respect of emergency response plans; or
    - (ii) Table 2 in respect of secondary containment; and
  - (b) it is not an aircraft subject to the Civil Aviation Act 1990 or a ship subject to the Maritime Transport Act 1994.
- (2) A person in charge of a place to which this clause applies must ensure that the requirements of this Part are complied with.

**Table 1. Trigger quantities for emergency plans**

HSNO classification	Description	Quantity
6.1A, 6.1B, 6.1C 8.2A 9.1A	liquid solid	100 L 100 kg
6.1D, 6.5A, 6.5B, 6.7A 8.2B 9.1B, 9.1C	liquid solid	1,000 L 1,000 kg
6.6A, 6.7B, 6.8A, 6.9A 8.2C, 8.3A 9.1D	liquid solid	10,000 L 10,000 kg

**Table 2. Trigger quantities for secondary containment**

HSNO classification	Quantity
6.1A, 6.1B, 6.1C 8.2A 9.1A	100 L
6.1D, 6.5A, 6.5B, 6.7A 8.2B 9.1B, 9.1C	1,000 L
6.6A, 6.7B, 6.8A, 6.9A 8.2C, 8.3A 9.1D	10,000 L

### **3 When emergency response plans required**

A place to which clause 2 applies must have in it a single emergency response plan relating to all the hazardous substances held in it or reasonably likely to be held in it on occasion.

### **4 Plans to warn of likely emergencies**

An emergency response plan must describe all of the reasonably likely emergencies that may arise from the breach or failure of the conditions on substances of the hazard classifications concerned.

### **5 Contents of plans**

An emergency response plan must, for each reasonably likely emergency—

- (a) describe the actions to be taken to—
  - (i) warn people at the place, and in surrounding areas that may be adversely affected by the emergency, that an emergency has occurred; and
  - (ii) advise those people about the actions they should take to protect themselves; and
  - (iii) help or treat any person injured in the emergency; and
  - (iv) manage the emergency so that its adverse effects are first restricted to the area initially affected, then as soon as practicable reduced in severity, then if reasonably possible eliminated; and
  - (v) if any of the substances concerned remain, re-establish the conditions imposed on it when it was approved; and
- (b) identify every person with responsibility for undertaking any of the actions described in subclause (a) (or any part of any of those actions) and give information on—
  - (i) how to contact the person; and
  - (ii) any skills the person is required to have; and

- (iii) any actions that person is expected to take; and
- (c) specify—
  - (i) how to obtain information about the hazardous properties of and means of controlling the substance or substances that may be involved; and
  - (ii) actions to be taken to contact any emergency service provider; and
  - (iii) the purpose and location of each item of equipment or material to be used to manage the emergency; and
  - (iv) how to decide which actions to take; and
  - (v) the sequence in which actions should be taken.

## **6 Availability of equipment, materials, and people**

All equipment and materials described in an emergency response plan, and all responsible people described in an emergency response plan who are on duty, must—

- (a) be present at the location concerned; or
- (b) be available to reach the location of the substance within the times specified in the plan; or
- (c) in the case of a trained person, be available to provide the advice or information specified in the plan within a time specified in the plan.

## **7 Availability of plans**

- (1) An emergency response plan must be available to every person identified under clause 5(b) as being responsible for executing the plan or a specific part of it, and to every emergency service provider identified in it.
- (2) The information in an emergency response plan must meet the standards of presentation required for information imposed under clause 1 of Part 1 (Information Requirements) of Schedule 1 to the Group Standard.

## **8 Testing plans**

- (1) An emergency response plan must be tested at least every 12 months; and the test must demonstrate that every procedure or action in the plan is workable and effective.
- (2) If there is a change to the persons, procedures, or actions specified in an emergency response plan, the plan must be tested within 3 months of the change; and the test must demonstrate that—
  - (a) the changed persons can perform their functions under the plan; and
  - (b) each changed procedure or action is workable and effective.
- (3) The carrying out and the results of every test must be documented; and the documentation must be retained for at least 2 years.

## **9 Plan can be part of other management documentation**

An emergency response plan can be part of any other management documentation for an emergency whether—

- (a) required by the Hazardous Substances and New Organisms Act 1996 or some other Act; or
- (b) undertaken by a person or organisation for some other reason.

## **10 Secondary containment systems for pooling substances**

- (1) A place to which clause 2 applies must have a secondary containment system if the aggregate quantity of pooling substances of a particular hazard classification held in it is equal to or greater than the quantity specified in Table 2.
- (2) Subclause (1) does not apply to a place that is a vehicle.
- (3) The secondary containment system must comply with clauses 11 to 14 depending on—
  - (a) the capacities of the container or containers in which the substances are held; and
  - (b) whether they are held in a place above or below ground.
- (4) If two or more containers of different capacities (as described in clauses 11 to 13) are held at one place, the system must have a capacity of at least the sum of each container category.
- (5) For the purposes of this clause, and clauses 11 to 14, where this substance is contained in pipework that is installed and operated so as to manage any loss of containment in the pipework it—
  - (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.
- (6) In this clause, pipework—
  - (a) means piping that—
    - (i) is connected to a stationary container; and
    - (ii) is used to transfer a substance into or out of the stationary container; and
  - (b) includes a process pipeline or a transfer line.

## **11 Surface containers of up to 60 L**

- (1) If pooling substances are held in a place above ground in containers each of which has a capacity of 60 L or less,—

- (a) if the place's total pooling potential is less than 20,000 L, the secondary containment system must have a capacity of at least 25% of that total pooling potential:
  - (b) if the place's total pooling potential is 20,000 L or more, the secondary containment system must have a capacity of the greater of—
    - (i) 5% of the total pooling potential; or
    - (ii) 5,000 L.
- (2) Pooling substances to which subclause (1) applies, must be segregated where appropriate to ensure that the leakage of one substance may not adversely affect the container of another substance.

## **12 Surface containers of over 60 and up to 450 L**

- (1) If pooling substances are held in a place above ground in containers one or more of which have a capacity of more than 60 L but none of which have a capacity of more than 450 L,—
- (a) if the place's total pooling potential is less than 20,000 L, the secondary containment system must have a capacity of either 25% of that total pooling potential or 110% of the capacity of the largest container, whichever is the greater:
  - (b) if the place's total pooling potential is 20,000 L or more, the secondary containment system must have a capacity of the greater of—
    - (i) 5% of the total pooling potential; or
    - (ii) 5,000 L.
- (2) Pooling substances to which subclause (1) applies, must be segregated where appropriate to ensure that the leakage of one substance may not adversely affect the container of another substance.

## **13 Surface containers of over 450 L**

- (1) If the pooling substances are held in a place above ground and are in containers one or more of which have a capacity of 450 L or more, the secondary containment system must have a capacity of at least 110% of the capacity of the largest container.
- (2) Subclause (1) applies to a container that is so connected to some other container or containers that leakage from it will cause the other container or containers to empty, as if its capacity is the sum of the capacities of all the connected containers.

## **14 Below ground containers**

- (1) If the pooling substances are held in a place and are in one or more below ground containers, the secondary containment system must have a capacity at least equal to the total pooling potential.
- (2) In subclause (1), below ground container—

- (a) means a container that is situated below ground; and
- (b) includes—
  - (i) a container below ground, the level of which has been raised to provide cover for the container; and
  - (ii) a container covered by other incombustible material instead of ground.

## **15 Particular controls on secondary containment systems**

There must be instituted or capable of being instituted in or in respect of a secondary containment system required by this Part, controls that—

- (a) if toxic or biological corrosive substances must be contained, prevent people from being directly exposed to them;
- (b) prevent the substances retained from being contaminated by incompatible substances and materials.

## **16 Variation to requirements of clause 13**

- (1) The capacity that a secondary containment system is required to have to comply with clause 13 may be reduced either—
  - (a) by the Authority upon application by any person and subject to such conditions as the Authority thinks fit; or
  - (b) in accordance with a code of practice approved by the Authority under section 78 of the Act for the purposes of this clause.
- (2) The Authority may not approve a capacity under subclause (1) that is less than 100% of the capacity of the largest stationary container 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.

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## **Part 3 Signage**

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### **17 Duties of persons in charge of places in respect of signage**

- (1) This clause applies to a place if—
  - (a) there is held in it, or reasonably likely to be held in it on occasion, an aggregate quantity of hazardous substances of a particular hazard classification greater than the quantity specified in Table 3; and
  - (b) it is not an aircraft subject to the Civil Aviation Act 1990 or a ship subject to the Maritime Transport Act 1994 or a vehicle subject to the Land Transport Act 1998.

- (2) A person in charge of a place to which this clause applies must ensure that—
- (a) signage required by clause 18 is provided; and
  - (b) its content, presentation and positioning comply with that clause; and
  - (c) it meets the general information requirement imposed under clause 1 of Part 1 (Information Requirements) of Schedule 1 to the Group Standard.

**Table 3. Trigger quantities requiring signage**

HSNO classification	Description	Quantity
6.1A 8.2A	liquid solid	50 L 50 kg
9.1A, 9.2A, 9.3A, 9.4A	liquid solid	100 L 100 kg
6.1B 8.2B	liquid solid	250 L 250 kg
6.1C 8.1A 8.2C, 8.3A 9.1B, 9.1C, 9.2B, 9.2C, 9.3B, 9.4B, 9.4C	liquid solid	1,000 L 1,000 kg
6.1D 9.1D, 9.2D, 9.3C	liquid solid	10,000 L 10,000 kg

## 18 Signage requirements

- (1) If substances are located in a building (but not a particular room or compartment within it) there must be positioned at every vehicular and pedestrian access to the building, and every vehicular and pedestrian access to land where the building is located, signage that—
- (a) states that hazardous substances are present; and
  - (b) describes the general type of hazard of each of them; and
  - (c) advises the action to be taken in an emergency.
- (2) If hazardous substances are located in a particular room or compartment within a building, there must be positioned at each entrance to the room or compartment signage complying with subclause (4).
- (3) If hazardous substances are located in an outdoor area, there must be positioned immediately next to that area signage complying with subclause (4).
- (4) Signage required by subclauses (2) or (3) must—
- (a) state that hazardous substances are present; and
  - (b) describe the general type of hazard of each of them; and
  - (c) advise the action to be taken in an emergency.



## Interpretation

**Act** means the Hazardous Substances and New Organisms Act 1996

**condition** means any obligation or restriction imposed upon a substance by a Group Standard

**general type**, in relation to a hazardous substance, means a general indication of its subclass (for example, “dangerous when wet”) whether given in words or by any other means

**group standard** means an approval for a hazardous substance issued by the Authority under Part 6A of the Act

**liquid** has the same meaning as in regulation 3 of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

**person in charge**, in relation to a place, a hazardous substance location, a transit depot, or a place of work, means a person who is—

- (a) the owner, lessee, sublessee, occupier, or person in possession of the place, location, or depot, or any part of it; or
- (b) any other person who, at the relevant time, is in effective control or possession of the relevant part of the place, location, or depot

**place** includes any vehicle, ship, aircraft, or other means of transport

**pooling substance** means a hazardous substance that—

- (a) is a liquid; or
- (b) is likely to liquefy in a fire

**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)

**secondary containment system**, in relation to a place,

- (a) means a system or systems—
  - (i) in which pooling substances held in the place will be contained if they escape from the container or containers in which they are being held; and
  - (ii) from which they can, subject to unavoidable wastage, be recovered; and
- (b) includes a system or systems that comply with a code of practice approved by the Authority under section 78 of the Act

**solid** has the same meaning as in 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 one 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 Part 4 (Packaging) of Schedule 1 to the Group Standard applies; or
  - (ii) packaging to which chapter 6.5, chapter 6.6, and chapter 6.7 of the UN Model Regulations apply; or
  - (iii) a cylinder to which the Hazardous Substances (Compressed Gases) Regulations 2004 apply

**total pooling potential**, in relation to a place, means the aggregate quantity of all pooling substances held in the place

**vehicle** means a motorised land transport vehicle

## Source Regulations and Controls

This section links each condition specified in this document to the source regulation or transfer notice from which the condition is based. The requirements of these regulations and controls have been incorporated as conditions verbatim, save for simplification to remove redundant text that does not apply to substances that have only toxic, corrosive or ecotoxic properties.

Clause in this document	Relevant regulation/transfer notice
1	Dangerous Goods Transfer Notice <sup>1</sup> – Schedule 8
2	Emergency Management <sup>2</sup> – Regulation 25
3	Emergency Management – Regulation 27
4	Emergency Management – Regulation 28
5	Emergency Management – Regulation 29
6	Emergency Management – Regulation 31
7	Emergency Management – Regulation 32
8	Emergency Management – Regulation 33
9	Emergency Management – Regulation 34
10	Emergency Management – Regulation 36, with changes to the regulation by the Dangerous Goods Transfer Notice – Schedule 7
11	Emergency Management – Regulation 37 with changes to the regulation by the Dangerous Goods Transfer Notice – Schedule 7
12	Emergency Management – Regulation 38 with changes to the regulation by the Dangerous Goods Transfer Notice – Schedule 7
13	Emergency Management – Regulation 39
14	Emergency Management – Regulation 40
15	Emergency Management – Regulation 41
16	Dangerous Goods Transfer Notice – Schedule 9, Clause 3
17	Identification – Regulation 51 <sup>3</sup>
18	Identification – Regulation 52; Emergency Management – Regulation 42

1. Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004.
2. Hazardous Substances (Emergency Management) Regulations 2001.
3. Hazardous Substances (Identification) Regulations 2001.