



No. 682

**DECREE
ON THE INDUSTRIAL HANDLING AND
STORAGE OF DANGEROUS CHEMICALS**

August 3, 1990

**Chapter 1
General Provisions**

**Section 1
Scope of application**

This Decree provides for the application of the Act on Explosive Materials (263/53) and the Chemicals Act (744/89) on industrial handling and storage of flammable liquids, flammable gases and chemicals dangerous for health or the environment. (12.7.1993/673)

The Decree also provides for the application of the Act on Explosive Materials to the handling and storage of flammable liquids and flammable gases in circumstances other than their industrial handling and storage and for the manufacture of storage tanks and piping for flammable liquids and flammable gases. (12.7.1993/673)

The provisions in chapter 9a of this Decree on the prevention of major-accident hazards also apply to the oxidizing chemicals referred to in Appendices III to V. (3.8.1992/703)

**Section 2
Application in the Defence Forces**

This Decree does not apply to the industrial handling or storage of chemicals by the Defence Forces insofar as these are covered by separate regulations.

**Section 3
Limitation of scope of application**

The provisions of this Decree on flammable liquids and flammable gases do not apply to industrial handling, storage or keeping insofar as these are covered by provisions in the Decree on Oil Heating Equipment (276/83), the Decree on Liquefied Petroleum Gas (316/79) or the Natural Gas Decree (623/87).

The provisions on flammable liquids do not apply to:

- 1) water solutions and water emulsions of flammable liquids which combine with water in all quantity ratios, and which have a flash-point of over 55 °C and a fire point of over 100 °C;
- 2) water solutions of ethyl alcohol that contain at most 24 per cent of ethyl alcohol by weight; or



3) vessels containing water solutions of ethyl alcohol the volume of which does not exceed 250 litres when the solution contains at most 70 per cent of ethyl alcohol by weight. (3.8.1992/703)

This Decree does not apply to the manufacture, use, supply, trade, storage, handling in a port, importation or disposal of explosives as referred to in the Decree on Explosives (85/80). This notwithstanding, the Decree applies to the industrial handling and storage of dangerous chemicals in connection with the manufacture of explosives, in that supervision is carried out in connection with the supervision of explosives by the authorities responsible for the supervision of explosives. The supervision comprises permits, notifications, inspections and other measures. (3.8.1992/703)

This Decree does not apply to radioactive substances, products containing radioactive substances, or asbestos or products containing asbestos. (12.7.1993/673)

Section 4 Definitions

The following definitions are used in this Decree:

1) *flammable gas* means a gaseous substance that has a boiling point of no more than 20 °C at normal atmospheric pressure and forms flammable mixtures with air at normal atmospheric pressure;

2) *flammable liquid* means a liquid that has a flash-point of no more than 100 °C and the form of which changes from a solid state into paste or liquid at or below 35 °C at normal atmospheric pressure, and a liquid that has a flash-point of over 100 °C when it is handled or stored at a temperature higher than its flash-point.

Flammable liquids that have a boiling point of 35 °C or less and a flash-point up to 0 °C are classified as *extremely flammable*; flammable liquids that have a flash-point up to 21 °C are *highly flammable*; and flammable liquids that have a flash-point of 21 °C or higher, but not above 55 °C, are *flammable*. (3.8.1992/703)

When a flammable liquid other than an extremely flammable one is handled at a temperature higher than its flash-point, it is classified as a highly flammable liquid at that temperature.

Flammable gases, flammable liquids and chemicals dangerous for health or the environment shall be classified and labelled in accordance with the regulations issued in and by virtue of the Chemicals Decree (620/90). (3.8.1992/703)

Section 5 Determining the properties of a chemical

To comply with the requirements laid down in this Decree, the establishments shall determine the flammability of chemicals that they handle and store, and any properties that might pose a hazard to health or the environment.

Chapter 2 Safety Requirements for Industrial Handling and Storage

Section 6 General requirement

A facility for industrial handling and storage of chemicals shall, with all due efficiency required by the operations and their extent, ensure that chemicals are handled and stored at the facility so as not to cause damage to people, the environment or property.

The facility shall ensure that the manufacturing and handling equipment, storage tanks, piping and associated equipment comply with the rules and regulations and verify such compliance. (13.10.1995/1173)

Section 7 Siting

A facility for industrial handling and storage of chemicals shall be sited at a sufficient distance from population centres, schools, care institutions, industrial facilities, warehouses, traffic routes and other outside operations, important groundwater areas and other groundwater areas suitable for water supply, nature reserves and other areas of importance for environmental protection so that the chemicals being handled or stored do not cause a manifest risk to people, the environment or property in the event of accident or failure. (12.7.1993/673)

A facility for industrial handling and storage of chemicals may not, without specifically justified grounds, be located in a major groundwater area or other groundwater area suitable for water supply. If, however, a facility for industrial handling and storage of chemicals is located in such an area, specific structural and operational measures shall be taken to ensure that operations cause no risk of groundwater contamination. (12.7.1993/673)

When a location is selected for the facility, it must also be ensured that operations carried out outside the facility do not increase the risk of accident there. (12.7.1993/673)

Section 8 Design, dimensioning and construction

The buildings and installations of a facility for industrial handling and storage of chemicals shall be designed, dimensioned and constructed so that risk of accident is prevented sufficiently effectively, taking into consideration the properties of the chemicals and the circumstances of their handling and storage.

Manufacturing and processing equipment, storage tanks, piping and associated installations shall be designed, dimensioned, constructed and located, and furnished with safety and control systems and devices, so as to ensure that: (3.8.1992/703)



- 1) operation of the installation does not cause any direct harm to people or damage to the environment or property;
- 2) the amount of chemicals escaping during an equipment failure, malfunction or operating error remains as low as possible, and the chemicals can be conducted into a place and handled in a way that minimizes any resulting damage;
- 3) in case of a run-away reaction or malfunction, the safeguards operate in a fail-safe manner;
- 4) relief of pressure during a malfunction causes as little damage as possible; and
- 5) chemicals are not mixed in a way that might cause a risk when the chemical or a product containing the chemical is later stored or handled.

Unauthorized entry to the facility area and unauthorized access to the chemicals shall be prevented by structural measures, or some other means that are sufficiently effective in view of the nature of the operations.

Section 9 **Warning signs in storage rooms, tanks and equipment**

To the extent necessitated by the operations and their extent, the equipment, tanks and storage rooms for chemicals at a facility used for industrial handling and storage of chemicals shall be furnished with warning signs that give sufficient information on safe use of the equipment and on necessary precautions against accident.

Section 10 **Operation and maintenance**

The service and maintenance of structures, equipment and accessories at a facility used for industrial handling and storage of chemicals shall be arranged sufficiently effectively in view of the nature and extent of the operation.

People engaged in operation, maintenance and installation tasks at the facility shall be given sufficient training and guidance on safe operation, as necessitated by the nature and extent of the operation.

Chapter 3 **Determining the Need for Permits and Notifications**

Section 11 (3.8.1992/703) **Delimitation of scope**

When determining the need for permits and notifications for industrial handling of chemicals, all chemicals dangerous for health or the environment and flammable gases and flammable liquids that are handled at a facility administered by one and the same establishment shall be included. Similarly, when determining the need for permits and notifications for

storage of chemicals, all dangerous chemicals stored at a facility administered by one and the same establishment, including fuel oil meant for oil-heating equipment, shall be included. When determining the need for permits and notifications, however, flammable gases the handling, storage and keeping of which are covered by provisions in the Decree on Liquefied Petroleum Gas or the Natural Gas Decree are not included. (12.7.1993/673)

Permits on industrial handling and storage are granted and notifications processed by the same authority when they relate to a facility administered by one and the same establishment. If, on the basis of reference figures, these tasks fall to different authorities, the permits are granted and notifications processed by the relevant higher authority. The same applies to facilities that constitute an operational entity even if they consist of several parts under different establishments.

Storage is defined as continuous or recurrent possession of a chemical in a certain place, in a stationary storage tank or silo, in portable containers or packages, or in a transport vehicle.

When determining the need for permits and notifications, storage also includes operations in which the chemical is used for cooling or heating in a closed system, the chemical is conducted through piping or used for filling tanks or packages, and operations in which the chemical is diluted with water, or water or impurities are mechanically separated from the chemical, or the chemical is treated in some other comparable straightforward way.

Section 12 **Reference figures**

The reference figure for industrial handling means a figure that is obtained by multiplying the quantity of chemical used or manufactured in 24 hours, or the quantity of the substance contained in the process installation if it is higher, by a coefficient specific to each substance.

The reference figure for storage means a figure that is obtained by multiplying the quantity stored by a coefficient specific to each substance.

The unit of quantity used for flammable liquids is the cubic metre, whereas flammable gases and chemicals dangerous for health or the environment are measured by the tonne.

Section 13 **Coefficient**

The coefficients are listed in the list of substances in Appendix I to this Decree. If a chemical or a chemical mixture is not mentioned in the list of substances, the coefficient is as follows:

- 1) 100 for a chemical for which the danger symbol T+ (very toxic) is required under the Chemicals Decree or a gas for which the danger symbol T (toxic) is required;



- 2) 50 for a flammable gas or a liquid classified as extremely flammable;
- 3) 10 for a highly flammable liquid or a chemical for which the danger symbol T (toxic) or N (dangerous for the environment) is required under the Chemicals Decree;
- 4) 2 for a flammable liquid or a chemical for which the danger symbol C (corrosive) or the risk phrase (R phrase) indicating danger to the environment is required under the Chemicals Decree;
- 5) 1 for a flammable liquid that has a flash-point of over 55 °C or a chemical for which the danger symbol Xn (harmful) or Xi (irritant) is required under the Chemicals Decree. (12.7.1993/673)

If the chemical has more than one of the dangerous properties mentioned in paragraph 1, the highest coefficient is used as the coefficient.

If a flammable liquid or a toxic or very toxic chemical that is liquid under normal conditions is at a temperature that is higher than its boiling point and at an overpressure of at least 0.5 bar, the coefficient shall be increased by 10.

If the number of different chemicals packed in transport packages or in vessels in storage exceeds 20, the group-specific coefficients referred to in paragraph 1 may be used instead of the substance-specific coefficients given in Appendix I. (3.8.1992/703)

Section 14 Large-scale industrial handling and storage

Industrial handling is on a large scale if the sum of the reference figures of chemicals handled at a facility engaged in industrial handling is higher than 100.

Storage is on a large scale if the sum of the reference figures of chemicals stored is higher than 5000.

Section 15 Medium-scale industrial handling and storage

Industrial handling is on a medium scale if the sum of the reference figures of chemicals handled at a facility engaged in industrial handling is higher than 10 but not more than 100.

Storage takes place on a medium scale if the sum of the reference figures of chemicals stored is higher than 1000 but no more than 5000.

Section 16 Separate loading and unloading sites

Operations where flammable gas is unloaded from a tanker vessel, a tank wagon or a tank truck, or a corresponding transport tank, and operations where flammable gas is loaded into a tanker vessel, a tank wagon or a tank truck or corresponding transport tank are regarded as medium-scale storage.

Operations where a toxic or very toxic chemical or a chemical dangerous for the environment which is gaseous or which has been liquefied under pressure or by cooling is handled in a way referred to in paragraph 1 are also considered equivalent to medium-scale storage.

Section 17 (3.8.1992/703) Small-scale industrial handling and storage

Industrial handling is on a small scale if the sum of the reference figures of chemicals handled at a facility engaged in industrial handling is no more than 10.

Storage is on a small scale if the sum of the reference figures of chemicals stored is no more than 1000.

Section 18 (3.8.1992/703) Distribution station

Notwithstanding what is provided above in this Decree, a distribution station where flammable liquids are transferred primarily into the fuel tanks of motor vehicles or motor boats is considered to be engaged in small-scale storage of a flammable liquid if:

- 1) the distribution station stores at most 140 m³ of extremely flammable and highly flammable liquids and liquids classified as flammable intended for the generation of energy and for engine fuel, in above ground and underground tanks, of which no more than 20 m³ is in above ground tanks and vessels; and
- 2) the maximum volume of other chemicals referred to in this Decree stored at the distribution station is such that the reference figure referred to in section 12 for all chemicals stored at the station does not exceed 2300. (12.7.1993/673)

If the limits prescribed in paragraph 1, sub-paragraphs 1 or 2 are exceeded, the distribution station is considered to be engaged in medium-scale storage, or if the reference figure exceeds 5000, large-scale storage.

Chapter 4 Permit and Notification Procedure

Large-scale industrial handling and storage

Section 19 Permit application for industrial handling

The application for a permit for large-scale industrial handling of a chemical shall be submitted in writing to the Safety Technology Authority before construction work begins on the facility. The application shall show:

- 1) the name and domicile of the applicant's firm, and contact data;
- 2) the location of the facility;



- 3) the flammable gases, flammable liquids and chemicals dangerous for health or the environment that are manufactured, used technically, stored or otherwise handled by the firm; and
- 4) the highest quantities of the chemicals referred to in sub-paragraph 3 manufactured and used daily and the highest quantities present at any single time in the process installation and in storage. (13.10.1995/1173)

The application shall be supplemented with information on the establishment, the chemicals handled and stored, the facility and its operations, action planned to prevent accidents, and fire prevention measures, insofar as this information is needed to process the application.

Section 20 **Permit application concerning storage**

The application for a permit for large-scale storage of a chemical shall be submitted in writing to the Safety Technology Authority before construction work begins on the storage facility. The application shall show:

- 1) the name and domicile of the applicant's firm, and contact data;
- 2) the location of the storage;
- 3) the flammable gases, flammable liquids and chemicals dangerous for health or the environment to be stored and their highest quantities; and
- 4) whether the applicant is engaged in operations referred to in section 36 of the Chemicals Act. (13.10.1995/1173)

The application shall be supplemented with information on the establishment, the chemicals stored, the storage facility and its operations, action planned to prevent accidents, and fire prevention measures, insofar as this information is needed to process the application.

Section 21 (13.10.1995/1173) **Processing the application**

In processing an application for large-scale industrial handling or storage, the Safety Technology Authority shall, if necessary, request opinions from the regional environment centre, the labour protection district and the municipal fire chief. If, however, the intention is to locate the facility on an important groundwater area or another area suitable for water supply, an opinion shall always be requested from the regional environment centre.

Section 22 **Permit decision**

A permit for large-scale industrial handling or storage shall be granted if the operations meet the requirements set forth in or under this Decree. The permit shall mention:

- 1) the kind of industrial handling or storage the permit applies to;
- 2) the place where the manufacturing facility, technical operating facility or storage facility is located;
- 3) information on the chemicals that may be handled or stored;
- 4) the permissible quantities of chemicals manufactured, used and stored; and
- 5) the permit conditions.

The permit may stipulate that, after construction work on the facility has reached a certain stage, the Safety Technology Authority shall be notified thereof so that the inspections that need to be conducted during construction to ensure safety of the facility or storage facility can be carried out. The permit may also require that a person with sufficient training and working experience in view of the demands set for the construction work be appointed at the facility or storage facility to supervise that construction takes place in accordance with this Decree, regulations issued by virtue of it, and the permit and attached conditions. (13.10.1995/1173)

The location drawing that accompanied the application and a sufficient number of other drawings shall be appended to the permit. All drawings shall bear approval markings.

Section 23 (13.10.1995/1173) **Giving information on the permit**

The Safety Technology Authority shall inform the relevant provincial government, the regional environment centre, the labour protection district, the municipal fire chief and the municipal chemicals supervisory authorities about permit decisions.

Medium-scale industrial handling and storage

Section 24 (13.10.1995/1173) **Permit application for industrial handling**

The application for medium-scale industrial handling of a chemical shall be submitted in writing to the Safety Technology Authority before construction work begins on the facility.

The provisions of section 19 on the contents of the application and necessary appendices shall be adhered to.

Section 25 **Notification of storage**

The Safety Technology Authority shall be notified of medium-scale storage of a flammable gas, a flammable liquid or a chemical dangerous for health or the environment before construction work begins on the storage facility. (13.10.1995/1173)

The provisions of section 20 on the permit application shall apply to the contents of the notification and appendices.



Section 26 (13.10.1995/1173)
Processing of the application

In processing an application for medium-scale industrial handling or storage, the Safety Technology Authority shall, if necessary, request opinions from the regional environment centre, the labour protection district and the municipal fire chief. If, however, the intention is to locate the facility in a major groundwater area or some other groundwater area suitable for water supply, an opinion shall always be requested from the regional environment centre.

Section 27
Permit decisions

The provisions of section 22, paragraphs 1 and 3, shall apply to permits decisions.

Section 28 (13.10.1995/1173)
Giving information on a permit decision and on reception of a notification

The Safety Technology Authority shall inform the relevant provincial government, the regional environment centre, the labour protection district, the municipal fire chief and the municipal chemicals supervisory authorities about permit decisions and reception of a notification as referred to in section 25.

Small-scale industrial handling and storage
(12.7.1993/673)

Section 29 (12.7.1993/673)
Notifying the local authorities

The fire chief or the municipal chemicals supervisory authorities shall be notified of small-scale industrial handling or storage of a chemical if the sum of the reference figures of chemicals handled is higher than 2 or if the sum of the reference figures of chemicals stored is higher than 10.

The notification shall contain the following information:

- 1) name and domicile of the establishment, and contact data;
- 2) location of the facility;
- 3) water intake plants, major groundwater areas and other groundwater areas suitable for water supply in the area, and the type of soil;
- 4) flammable gases, flammable liquids and chemicals dangerous for health or the environment that are manufactured, used technically, stored or otherwise handled in the facility;
- 5) the highest quantities of chemicals referred to in sub-

paragraph 4 manufactured and used daily, the quantities present at any single time in the process installation and the quantities stored; and
6) when operations are intended to begin.

The following shall be appended to the notification:

- 1) safety data sheets or corresponding data on the principal chemicals manufactured, and their raw materials, and on chemicals used technically, stored or otherwise handled;
- 2) a general description of how the industrial handling or storage is to take place; and
- 3) a description of arrangements made for fire safety, of control of possible leaks, and of other measures planned in the event of accidents.

The notification shall be made in two copies in good time before industrial handling or storage begins.

Section 30 (12.7.1993/673)
Notification on spray painting

In addition to the provisions of section 29, spray painting shall be considered small-scale industrial handling falling under the obligation of notification to the fire chief, if:

- 1) the reference figure does not exceed 2;
- 2) an extremely flammable or highly flammable liquid or a liquid classified as flammable is repeatedly used in the same place; and
- 3) the total amount of paint sprayed may exceed 0.5 litres per minute, or the volume of the paint container connected to the spray exceeds 60 litres.

However, the separate notification referred to in paragraph 1 above need not be made if the spray painting facility is part of large or medium-scale industrial handling or storage or small-scale industrial handling or storage referred to in section 29.

Section 31 (12.7.1993/673)
Cooperation between local authorities

The fire chief shall send a copy of the notification received in accordance with section 29 to the municipal chemicals supervisory authority. Similarly, the municipal chemicals supervisory authority shall send a copy of the notification received in accordance with section 29 to the fire chief.



Chapter 5 Inspections

Large-scale and medium-scale industrial handling and large-scale storage

Section 32 Commissioning inspection

A facility engaged in large-scale industrial handling or storage or medium-scale industrial handling, or a part of such a facility, shall not be commissioned until it has been inspected in full operational readiness and the inspection (*commissioning inspection*) has found that the facility or part of it meets the requirements issued in this Decree and in regulations issued under it and the conditions laid down in the permit.

A request for inspection shall be sent in writing to the Safety Technology Authority, which shall notify the labour protection district, the regional environment centre and the municipal fire chief and chemicals supervisory authorities about the inspection if necessary. (13.10.1995/1173)

In cases determined by the Safety Technology Authority, the commissioning inspection or part of it can be replaced with an inspection carried out by an inspectorate. (13.10.1995/1173)

Section 33 Inspection report

An inspection report shall be drawn up on the commissioning inspection showing whether the facility meets the requirements of this Decree, regulations issued under it and the conditions laid down in the permit.

If the inspection reveals that the facility does not in every respect meet the requirements of this Decree, regulations issued under it or the conditions laid down in the permit, the deficiencies detected shall be written down in the report. (13.10.1995/1173)

If the inspection reveals factors that have a material bearing on the safety of the facility but were apparently not known when the permit application was processed, this must also be mentioned in the report.

Section 34 (13.10.1995/1173) Decision on commissioning

If the inspection reveals factors that have a material bearing on the safety of the facility but were not known when the permit was granted, or if the inspection reveals that the facility does not meet the requirements of this Decree, regulations issued under it or the conditions laid down in the permit, the decision on whether the facility may be commissioned and the conditions that operation of the facility must in such case fulfil shall be made by the Safety Technology Authority in the case of large or medium-scale industrial handling or storage.

Medium-scale storage

Section 35 (13.10.1995/1173) Commissioning inspection

The establishment shall, not later than 30 days before operations begin, submit a written request for the inspection of a medium-scale storage facility or part-store to the Safety Technology Authority, which shall notify the labour protection district, the regional environment centre, municipal fire chief and chemicals supervisory authorities about the inspection if necessary. The inspection shall be conducted before the announced date for starting operations.

In cases determined by the Safety Technology Authority, the commissioning inspection or part of it can be replaced with an inspection conducted by an inspectorate.

The inspection shall verify that the storage facility or part-store complies with the requirements of this Decree and the regulations issued under it.

An inspection report shall be drawn up stating any deficiencies detected at the facility.

Small-scale industrial handling and storage (12.7.1993/673)

Section 36 (12.7.1993/673) Inspection

The fire chief, or a holder of an office in the fire service designated by the fire chief, shall inspect a facility referred to in sections 29 and 30 engaged in small-scale industrial handling or storage which handles or stores flammable gases or flammable liquids within three months of the commencement of operations. Similarly, a holder of an office designated by the municipal chemicals supervisory authorities shall inspect a facility referred to in section 29 engaged in small-scale industrial handling or storage which handles or stores chemicals dangerous for health or the environment, within three months of the commencement of operations.

If a facility engaged in small-scale industrial handling or storage handles or stores both flammable gases and liquids and chemicals dangerous for health and the environment, the inspections referred to in paragraph 1 shall be conducted simultaneously.

A report shall be drawn up on the inspection referred to in sections 1 and 2 above stating any deficiencies detected at the facility and the measures proposed by the inspectors to eliminate them. The inspection report shall be submitted to the establishment.

Section 37 (12.7.1993/673) Deciding on action

If the inspection referred to in section 36 reveals that the facility does not comply with the requirements of this Decree or the regulations issued under it, the decision on action



required to rectify the deficiencies shall be made by the fire chief in the case of flammable gases or flammable liquids, and by the municipal chemicals supervisory authority in the case of chemicals dangerous for health or the environment.

In order to avoid conflicting requirements, the fire chief and the municipal chemicals supervisory authorities shall work together, as sufficient when issuing regulations.

Section 37a (12.7.1993/673)

Notification to the permits register

Using a form confirmed by the Safety Technology Authority, the fire chief shall submit to the Safety Technology Authority information on facilities engaged in small-scale industrial handling and storage of flammable gases and flammable liquids, of which a notification referred to in sections 29 and 30 has been made, and on inspections carried out in these facilities, for entry in the permits register referred to in the Chemicals Decree. The same applies to the municipal chemicals supervisory authorities as concerns facilities engaged in small-scale industrial handling of chemicals dangerous for health or the environment. In the case of a facility referred to in section 36, paragraph 2, the information to the chemicals register shall be submitted by the authority to which the notification referred to in section 29 was made. (13.10.1995/1173)

The provisions of paragraph 1 also apply to notifications of modification referred to in chapter 9.

Chapter 6

Supervisors of Industrial Handling and Storage

Section 38

Appointing a supervisor

An establishment engaged in large-scale or medium-scale industrial handling or storage shall appoint a supervisor of industrial handling and storage and, when necessary, one or more deputy supervisors.

The supervisor shall be employed by the enterprise engaged in said operations and shall be posted at the facility in question, unless the Safety Technology Authority has, for special reasons, approved some other arrangement. (13.10.1995/1173)

The supervisor and the deputy supervisor must be familiar with the operations of the facility and the rules and regulations concerning the chemicals handled at the facility, be sufficiently familiar with chemical and process technology in view of the type and scale of operations at the facility, and know about the properties of the chemicals handled at the facility and the measures taken to prevent chemical accidents.

Section 39 (13.10.1995/1173)

Ensuring competence

The Safety Technology Authority shall test the competence of the supervisor and deputy supervisor of industrial handling and storage. After passing the test, the examinee shall be given a certificate showing for which type of facility he is entitled to act as a supervisor.

Section 40

Supervisor's duties

The supervisor of industrial handling and storage shall ensure that the facility is managed in a technically correct way, in accordance with the rules and regulations and the permit concerning the facility.

The establishment shall see to it that it is possible for the supervisor to discharge his duties.

Section 41

Notification of supervisor

The Safety Technology Authority shall be notified in writing of the appointment of a supervisor and deputy supervisor of industrial handling and storage. The notification shall include: (13.10.1995/1173)

- 1) the certificate referred to in section 39;
- 2) an account of the supervisor's training, work experience and familiarity with the operations of the facility in question (3.8.1992/703);
- 3) the supervisor's consent to performing the task; and
- 4) an account of the supervisor's responsibilities.

Section 42

Appointment of a new supervisor

If the supervisor of industrial handling and storage resigns from his job, a new supervisor shall be appointed without delay within three months.

The Safety Technology Authority may require that a new supervisor or deputy supervisor of handling and storage be appointed if the person appointed by the establishment has insufficient qualifications for proper performance of his duties. (13.10.1995/1173)



Chapter 7 Special Provisions Concerning Flammable Gases and Flammable Liquids

Storage restrictions

Section 43

Residential, office, accommodation, day-care and meeting premises

A total of 25 litres of extremely flammable and highly flammable liquids and liquids classified as flammable, and aerosols containing flammable liquids or flammable gases, may be kept in rooms used for residential, office, accommodation, day-care and meeting purposes and comparable premises. Other flammable gases may not be kept on these premises. A total of 50 litres of flammable liquids that have a flash-point of over 55 °C may be kept on these premises. (3.8.1992/703)

A total of 100 litres of flammable gases, extremely flammable and highly flammable liquids and liquids classified as flammable may, however, be kept in a separate storeroom or service or work room in a building that has the premises referred to above in paragraph 1. A total of 200 litres of flammable liquids that have a flash-point of over 55 °C may be stored on these premises.

Hospitals, schools and other comparable facilities may additionally have separate stores for flammable liquids necessary for their operations, provided the stores form their own fire compartment and a notification in accordance with section 29 has been made. (3.8.1992/703)

Flammable gases and flammable liquids may not be kept in shared basement or attic premises that are intended for storing the residents' household goods in a building consisting of two or more dwellings.

In calculating the maximum volumes mentioned in paragraph 1 and 2 above, flammable liquids and gases are not taken into account if their handling, storage and keeping are covered by provisions in the Decree on Oil-Heating Equipment, the Decree on Liquefied Petroleum Gas or the Natural Gas Decree. (3.8.1992/703)

Section 44 (3.8.1992/703)

Shed for motor vehicles

The volume of flammable gas and flammable liquid held by a fixed fuel tank attached to the engine of a vehicle, machine or comparable equipment may be kept in a shed for motor vehicles. In addition, a total of 60 litres of extremely flammable and highly flammable liquids and liquids classified as flammable, and aerosols containing flammable gases and flammable liquids, and a total of 200 litres of flammable liquids that have a flash-point of over 55 °C may be kept in the shed.

In calculating the maximum volumes mentioned in paragraph 1 above, flammable liquids and gases are not taken into account if their handling, storage and keeping are covered

by provisions in the Decree on Oil-Heating Equipment, the Decree on Liquefied Petroleum Gas or the Natural Gas Decree.

Section 45

Shop premises

A total of 1000 litres of flammable liquids in containers not exceeding 25 litres in volume may be kept in a fire compartment used as shop premises. Of this total, no more than 200 litres may be aerosols containing flammable gases and flammable liquids, and liquids classified as extremely flammable, and these must be packed in containers not exceeding 2 litres in volume.

Shop premises may additionally have separate stores for aerosols and flammable liquids, provided the stores form their own fire compartment and a notification in accordance with section 29 has been made.

Section 46

Exemption from storage restrictions and additional restrictions

On the basis of an inspection, the fire chief may approve the storage of flammable gases and flammable liquids in the premises referred to in sections 43-45 in excess of the volumes provided in sections 43-45 if this can be done without endangering fire safety.

In individual cases, the fire chief may restrict the volumes of flammable gases and flammable liquids stored in the premises referred to in sections 43-45, or set other restrictions or conditions for storage, if this is deemed necessary for fire safety.

Storage area

Section 47

Ratification as a storage area

A storage area that includes two or more large or medium-scale storage facilities for flammable gases or flammable liquids shall be ratified by the Safety Technology Authority as a storage area for flammable liquids, and application shall be made for this ratification if: (13.10.1995/1173)

- 1) the storage facilities share equipment, traffic areas, unloading and loading platforms or comparable arrangements; or
- 2) fire prevention and other precautionary measures at the storage facilities are designed to be carried out, either partly or entirely, using shared installations and materials.

The applicability of the location, traffic arrangements, ground, jointly used transfer pipes, unloading and loading equipment, and their operating arrangements and service and maintenance systems for the operations in the storage area, and



the sufficiency of fire prevention and other precautionary measures shall be ensured in connection with the ratification of an area as a storage area, taking into account the operations planned in the area and their extent.

Conditions needed to ensure the safety of the storage area may be laid down in the ratification decision.

Before an area is ratified as a storage area, the Safety Technology Authority shall request opinions from the municipal chemicals supervisory authorities, the fire chief, the regional environment centre and the labour protection district. (13.10.1995/1173)

Section 48

Application for ratification

Application for the ratification of an area as a storage area for flammable liquids may be made by the local authority, the owner or proprietor of the storage area or a party whom the managers of the storage area have jointly so authorized.

The application for the ratification of a storage area shall be submitted in writing to the Safety Technology Authority, and it shall contain the following information: (13.10.1995/1173)

- 1) land use planning and traffic arrangements in the storage area and in its vicinity;
- 2) ownership of the storage area and the installations and materials intended for joint use;
- 3) the chemicals to be stored in the storage area and their maximum volumes by class;
- 4) suitability of the ground in the area for a storage area for chemicals;
- 5) implementation and structure of jointly used loading and unloading equipment, transfer pipes and other equipment and materials in joint use, and how their use, maintenance and service have been arranged; and
- 6) how fire prevention, the prevention of other damage and rescue operations have been organized within the area.

Storage tanks

Section 49

Construction inspection

A manufacturer or importer may not release a tank intended to serve as a stationary storage tank for flammable gases and flammable liquids for use before it has undergone an inspection by an inspectorate (*construction inspection*) to determine that the tank conforms to the relevant rules and regulations. (13.10.1995/1173)

In addition to the inspection referred to in paragraph 1, an inspection shall be carried out for a tank the volume of which is 1000 m³ or more at the initial stage of installation and welding work. This inspection shall be carried out by an inspectorate. (13.10.1995/1173)

A record of the inspection shall be given to the manufacturer or importer who requested the inspection. The manufacturer or importer must give this record to the party who ordered the tank. (12.7.1993/673)

For an imported storage tank, the inspectorate may approve measures associated with a construction inspection duly carried out abroad as a construction inspection or part of it if an acceptable certificate of the measures is presented. (13.10.1995/1173)

A tank that is subject to the rules and regulations concerning pressure vessels need not undergo a construction inspection. (12.7.1993/673)

Section 50 (13.10.1995/1173)

Construction inspection of tanks produced in series

If the storage tanks for flammable gases or flammable liquids manufactured or imported do not exceed 100 m³ in volume and are identical in construction and coating, the inspection may be carried out as a serial inspection. In the serial inspection the inspectorate inspects the first tank of the series and thereafter at least one tank in twenty.

The manufacturer of tanks referred to above in paragraph 1 shall appoint a supervisor of manufacture to supervise the manufacture of the tanks and to ensure that the tanks have been constructed in accordance with rules and regulations. In addition, the supervisor of manufacture shall ensure that the manufacturer or importer carries out a construction inspection of the other tanks of the series besides those inspected according to paragraph 1. The supervisor shall be employed by the tank manufacturer.

Plates showing the tank specifications and bearing the inspection institution's mark shall be attached, under the supervision of the supervisor of manufacture, to tanks found to comply with the regulations.

The provisions of paragraphs 1-3 do not apply to tanks subject to rules and regulations concerning pressure vessels.

Section 50a (12.7.1993/673)

Construction supervision

The manufacturer of storage tanks for flammable gas and flammable liquid with a volume exceeding 100 m³ shall designate a person in charge of:

- 1) making sure before construction of the tank begins that the foundation of the tank has been built and inspected in compliance with rules and regulations;
- 2) supervising the construction work and ensuring that the tank is built and inspected in compliance with rules and regulations; and
- 3) ensuring that the construction materials used for the tank and the associated materials certificates can still be reliably related to each other after the tank has been built.

The person in charge referred to in paragraph 1 above shall have the expertise, experience and authority needed for carrying out the tasks. (13.10.1995/1173)

The manufacturer of the tank shall submit to the orderer a certificate in writing indicating that the tank has been built and inspected in compliance with rules and regulations. The person in charge referred to in paragraph 1 shall sign the certificate. The person in charge shall also make sure that the structural drawings, construction and inspection documents, documents concerning the foundation and its inspection and the servicing and inspection plan for the tank drawn up jointly with the orderer are all submitted to the orderer.

The provisions of this section shall apply as appropriate to repairs and essential structural changes of storage tanks for a flammable liquid and a flammable gas the volume of which exceeds 100 m³.

Section 51 **Issuing regulations**

By decision of the Ministry of Trade and Industry, the following regulations may be issued concerning storage tanks for flammable gases and flammable liquids:

- 1) the foundation of the storage tank must be inspected before installation work on the tank begins;
- 2) a manufacturer constructing storage tanks must employ a supervisor of manufacture to supervise the manufacture and inspection of tanks; and
- 3) application for the type approval of tanks of a certain type must be made to the inspectorate before manufacture begins. (13.10.1995/1173)

Piping

Section 52 (13.10.1995/1173) **Manufacture of piping**

Piping that has an operating pressure of at least 0.5 bar (overpressure) and that is used at a facility for large or medium-scale industrial handling or storage of flammable gases or flammable liquids shall be made by a manufacturer who has a right, as referred to in the rules and regulations concerning pressure vessels, to manufacture piping, and a supervisor of manufacture as referred to in said regulations.

Chapter 8 **Accidents in Industrial Handling and Storage**

Section 53 **Notification of an accident to the supervisory authorities**

If there has been a severe accident involving flammable gases, flammable liquids or a chemical dangerous for health or

the environment at a facility for large or medium-scale industrial handling or storage, the establishment shall notify the Safety Technology Authority thereof. (13.10.1995/1173)

If there has been a severe accident involving the chemicals referred to in paragraph 1 in connection with some other industrial handling or storage, notification shall be made to the municipal chemicals supervisory authorities, who shall further inform the Safety Technology Authority and, when necessary, the regional environment centre of the accident. (13.10.1995/1173)

The establishment shall submit a report on any severe accident to the supervisory authorities. The report shall:

- 1) describe the accident and the circumstances prevailing at the time of the accident;
 - 2) mention which chemicals were involved in the accident and give the data needed in the assessment of their effects on people, the environment and property;
 - 3) describe the response measures that have been taken because of the accident; and
 - 4) describe what measures the establishment intends to take:
 - a) to prevent any long-term effects of the accident; and
 - b) to prevent the recurrence of similar accidents.
- (3.8.1992/703)

An accident shall be considered severe if:

- 1) it results in death or in serious harm to a person's health;
- 2) it results in other than minor damage to the environment or property; or
- 3) the amount of flammable gases, flammable liquids or chemicals dangerous for health or the environment escaping into the environment is so high that they pose a manifest risk of danger to people, the environment or property. (3.8.1992/703)

Section 54 (13.10.1995/1173) **Accident investigations**

The Safety Technology Authority shall investigate an accident if necessary to determine the reason for the accident, to improve the technical safety of the facility or to prevent accidents.

Section 55 (13.10.1995/1173) **Commissioning after an accident**

The Safety Technology Authority may determine that an installation or a part thereof damaged in an accident that has occurred in connection with large or medium-scale industrial handling or storage may not be put back into service before a new permit has been granted, or inspections have been carried out in accordance with chapter 5.



Chapter 9 Modifications

Section 56 (12.7.1993/673) Notifications of modification

If operations at a facility for large or medium-scale industrial handling or storage are to be extended or otherwise essentially modified after the commissioning inspection, the Safety Technology Authority shall be notified in writing thereof. (13.10.1995/1173)

A written report in duplicate concerning extensions and other substantial modifications related to small-scale industrial handling or storage referred to in sections 29 and 30 shall be submitted to the fire chief or the municipal chemicals supervisory authorities. The provisions of section 31 shall apply to cooperation between the authorities.

Section 57 Modification permits and inspection of modifications

A permit is needed to carry out any extension or modification concerning large-scale industrial handling or storage or medium-scale industrial handling that is essential for safety. The facility shall be reinspected before the extension or modification is put to use. The provisions of chapters 4 and 5 apply to the permit procedure and to the associated inspection, as appropriate. Similarly, a medium-scale storage facility shall be inspected before an extension or a modification is put into use, and a request for an inspection shall be made in good time.

Even if an expansion or a modification at a facility needing a permit is not so essential for safety as to require a new permit, the Safety Technology Authority may order that a facility for large-scale industrial handling or storage or for medium-scale industrial handling be inspected with respect to the modification in accordance with chapter 5. (13.10.1995/1173)

Section 58 Change of establishment

If a facility for large or medium-scale industrial handling or storage is assigned to a new establishment, the latter shall notify the Safety Technology Authority of the change without delay. (13.10.1995/1173)

Similarly, the fire chief or the municipal chemicals supervisory authorities shall be notified when there is a change of management at a facility for small-scale industrial handling or storage. The provisions of section 31 shall apply to cooperation between the authorities. (12.7.1993/673)

Section 58a (3.8.1992/703) Issuing regulations or conditions

When handling notifications of modifications referred to in this chapter, the Safety Technology Authority may issue regulations or conditions on operations that are considered necessary for meeting the requirements laid down in rules and regulations. (13.10.1995/1173)

Similarly, when handling notifications of modifications, the fire chief and the municipal chemicals supervisory authorities may, in accordance with section 37, issue regulations or conditions deemed necessary for complying with rules and regulations. (12.7.1993/673)

Section 59 Closing down of industrial handling and storage

If industrial handling or storage is closed down permanently, or a part of the facility is removed from service, the owner and proprietor of the facility shall see to it that, when necessary after close-down of operations, the structures and areas of the facility or the part removed from service are cleaned so as not to cause harm to people or damage to the environment or property.

If the operations of a facility for large or medium-scale industrial handling or storage are closed down or interrupted for more than a year, a notification thereof shall be made to the Safety Technology Authority. Similarly, the fire chief or the municipal chemicals supervisory authority shall be notified of the close-down or interruption of small-scale industrial handling or storage, and these authorities shall inform each other of the notifications received. (13.10.1995/1173)

Chapter 9a (3.8.1992/703) Preventing Major-Accident Hazards

Section 59a (3.8.1993/703) Major accident

For the purposes of this Decree, a major accident means an event arising as a consequence of uncontrolled developments at a facility engaged in the industrial handling or storage of one or more chemicals, such as a major chemical emission, a fire or an explosion, leading to a serious immediate or delayed danger to people inside or outside the facility, or a serious danger to the environment or property.

Section 59b (3.8.1993/703) Assessment of hazard

An establishment referred to in Appendix II that handles chemicals referred to in Appendix V, and an establishment that stores chemicals in accordance with Appendix III, parts I and II, table column 1, shall assess the hazard of a major accident in a report showing:



- 1) sources of hazard associated with the handling of chemicals, and the circumstances and situations in which an accident is possible;
- 2) a description of typical hazard situations and situations involving the highest possible hazard, their consequences within and effects outside the facility, and the operational errors and equipment failures and damage leading to these situations; and
- 3) what precautions are taken to prevent hazards during normal operation, during repair and maintenance work and in connection with various failure situations.

Section 59c (3.8.1993/703)

Safety report on the prevention of major-accident hazards

If an assessment of hazard carried out in accordance with section 59b shows that a major-accident hazard exists at the facility, an establishment referred to in Appendix II that handles chemicals referred to in Appendix IV, and an establishment that stores chemicals in accordance with Appendix III, parts I and II, table column 2, and any other establishment shall conduct an integrated and systematic safety assessment, taking into account the circumstances at the facility and the quality and extent of the hazard. The assessment report shall include:

- 1) a detailed account of the possibility of operational errors and equipment failure or faults, hazards caused by errors made by the personnel and consequences of accidents within the facility and their effects outside the facility; and
- 2) what precautions have been taken at the facility to prevent accidents in advance and to limit their consequences.

A safety report or a description showing how and by what methods the safety report has been compiled, what the findings of the assessment are and what measures have been taken as a result of the findings, shall be submitted to the Safety Technology Authority in good time before the start of operations. (13.10.1995/1173)

Section 59d (3.8.1993/703)

Taking developments into account

The establishment shall from time to time review the reports required in sections 59b and 59c and update them to correspond to the developments that have taken place in safety technology and also otherwise, if a change increasing the hazard of major accidents has occurred in operations.

The provisions of section 59c, paragraph 2, on the submission of a report to the authorities, also apply to the reports referred to in paragraph 1.

Section 59e (3.8.1993/703)

Requirement to provide information

An establishment referred to above in section 59c shall, to the extent approved by the supervisory authorities, give information about safety measures and correct action to communities and people who may be endangered in a situation involving a major accident.

The information shall include the data referred to in Appendix VI.

Information shall be repeated at appropriate intervals and especially when the data referred to in paragraph 1 has undergone essential change. The public shall have access to the information at all times.

Section 59f (3.8.1993/703)

Cooperation between establishments

If facilities administered by several establishments constitute one operational entity, the establishments shall work together to meet the requirements specified in this chapter.

Chapter 10

Miscellaneous Provisions

Section 60 (13.10.1995/1173)

Inspectorate

In this Decree and in regulations issued under it 'inspectorate' shall refer to the Technical Inspection Centre.

Section 61 (13.10.1995/1173)

Notification of temporary industrial handling and storage

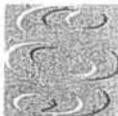
The Safety Technology Authority shall be notified of large or medium-scale industrial handling and large-scale storage carried out on a one-off basis for no more than six months in one place. The notification shall be made in good time before operations begin. The provisions of sections 19, 20, 24 and 25 shall apply to the content of the notification, as appropriate.

The Safety Technology Authority may issue a decision disallowing the start-up of operations if they cannot be considered safe enough, or set certain conditions and restrictions for the operations to ensure safety.

Section 62 (13.10.1995/1173)

Pilot plant permit

Upon application, the Safety Technology Authority may grant a separate permit for a pilot plant that is used for the industrial handling of flammable gases, flammable liquids or chemicals dangerous for health or the environment for research



and development purposes. The provisions of section 19 shall apply to the application for a pilot plant permit to the appropriate extent. The Safety Technology Authority may append certain safety conditions to the pilot plant permit.

Section 63 **Start-up testing**

Before the inspection, a facility for industrial handling or storage, or a part thereof, may carry out start-up testing for adjustments during installation. Start-up testing shall be carried out so as not to endanger safety and so that the facility or storage can be inspected in every respect.

Section 64 **Granting exceptions**

In individual cases, the Safety Technology Authority may grant exceptions to the provisions of this Decree or regulations issued under it for a facility for large or medium-scale industrial handling or storage, on conditions deemed necessary by the Safety Technology Authority, if compliance with the provisions entails unreasonable costs or considerable inconvenience and if the intended safety can be achieved in some other way. (13.10.1995/1173)

In the case of a facility for small-scale industrial handling or storage, the fire chief has the right referred to in paragraph 1 with respect to flammable gases or flammable liquids, and the municipal chemicals supervisory authority with respect to chemicals dangerous for health or the environment. (12.7.1993/673)

Section 65 **Sales records**

An establishment engaged in large or medium-scale industrial handling or storage and selling toxic or very toxic chemicals shall keep records of its sales. The records shall show:

- 1) to whom chemicals have been sold;
- 2) the chemicals sold and their volumes; and
- 3) the date of sale.

The records shall be retained for a period of five years.

Section 66 **Supervision**

The highest authority supervising compliance with the provisions of this Decree and with regulations issued under this Decree shall be the Safety Technology Authority. (13.10.1995/1173)

The Safety Technology Authority shall, in addition to paragraph 1, supervise compliance with the provisions issued

in and under this Decree at facilities for large or medium-scale industrial handling or storage. (13.10.1995/1173)

The municipal chemicals supervisory authorities shall supervise compliance with provisions issued in and under this Decree on small-scale industrial handling and storage involving chemicals dangerous for health or the environment, conducting inspections when necessary.

The fire chief shall supervise compliance with provisions issued in and under this Decree on small-scale industrial handling and storage involving flammable gases and flammable liquids, conducting inspections when necessary.

In the inspections, special attention shall be paid to the safe operation of the facility, the service and maintenance of structures, equipment and accessories at the facility, training and instruction of personnel, prevention of accidents and organization of rescue operations. (3.8.1992/703)

Section 67 **More detailed regulations and guidelines**

The Ministry of Trade and Industry will issue more detailed regulations and guidelines on the industrial handling and storage of flammable gases and flammable liquids and chemicals dangerous for health or the environment and on the general application of this Decree.

The Ministry of Trade and Industry may decide that equipment used in industrial handling or storage should be inspected regularly and issue more detailed regulations on periodic inspections, on approval of firms performing these inspections and on their competence requirements.

Chapter 11 **Entry into Force and Transitional Periods**

Section 68 **Entry into force**

This Decree comes into force on September 1, 1990. Separate provisions will be issued on the entry into force of requirements concerning chemicals dangerous for the environment laid down in sections 1, 5, 13, 16, 18, 19, 20, 25, 29, 53, 62 and 66 of this Decree. (12.7.1993/673)

Measures required to enforce this Decree may be taken before it comes into effect.

This Decree repeals the Decree (921/76) on Flammable Liquids of November 19, 1976, and its subsequent amendments. The Ministry of Trade and Industry Decision on Flammable Liquids (313/85), the Ministry of Trade and Industry Decision on Periodic Inspections of Underground Oil Tanks (344/83) and the Ministry of Trade and Industry Decision on Tanks Intended for the Transport of Flammable Liquids (649/78) shall remain in force until otherwise decided by the Ministry of Trade and Industry.

Until otherwise decided by the Ministry of Trade and Industry, the regulations in the Ministry of Trade and Industry Decision on Flammable Liquids shall apply to the require-



ments for the industrial handling and storage of flammable liquids referred to in section 4, paragraph 3, of this Decree, while applying the classification in section 4 of the Decree on Flammable Liquids. (3.8.1992/703)

Section 69

Relation between the previous classification of flammable liquids and the present classification

The previous provisions and regulations on Class I, II and III flammable liquids shall apply to flammable liquids classified according to this Decree as follows:

- regulations on Class I flammable liquids apply to extremely flammable liquids and liquids classified as highly flammable;
- regulations on Class II flammable liquids apply to liquids classified as flammable; and
- regulations on Class III flammable liquids apply to flammable liquids with a flash-point of over 55 °C.

Section 70

Previous permits

Application for a permit for industrial handling or storage as referred to in this Decree need not be lodged, or a notification made, if the party in question has a permit to manufacture a toxic substance as referred to in the Act on Toxic Substances (309/69) or a permit for the manufacture, technical use, storage or handling of a flammable liquid as referred to in the Decree on Flammable Liquids, or if the operations have been approved in an inspection by the fire authorities as provided in the Decree on Flammable Liquids.

Section 71

Notification of operations begun before the Decree comes into force

If a facility has not been granted a permit or approval as referred to in section 70, it must make a notification of industrial handling or storage begun before this Decree comes into force to the Technical Inspection Centre, a district office of the Centre or a fire chief, depending on how the requirement to apply for a permit or to make a notification is determined in accordance with chapter 3 of this Decree, not later than September 1, 1991.

Besides data on the establishment, the notification shall indicate the kind of industrial handling or storage carried out, where the facility is located, what chemicals are mostly handled or stored, and how extensive operations are.

The recipient of the notification may demand that the establishment supplement the notification with the data referred to in sections 19, 20, 24, 25 and 29 if this is required for supervision of compliance with provisions issued in and under this Decree.

The data given in the notification shall be recorded in the permit register referred to in the Chemicals Decree, in accordance with instructions issued by the Technical Inspection Centre.

Section 72

Modifications in operations begun before the Decree comes into force

The provisions of sections 56-58 shall apply to notifications and applications for permits for modifications in operations as referred to above in section 70 or 71.

Section 73 (12.7.1993/673)

Deadline for submitting a permit application and making a notification in certain cases

If a chemical is classified as dangerous for health or the environment or if the classification of a chemical changes after August 1, 1993, the establishment engaged in industrial handling or storage of the chemical shall apply for a permit referred to in chapter 4 or submit a notification referred to in chapter 4 within one year from the entry into force of the classification decision, if the operation does not have a permit or approval referred to in section 19, 20, 24 or 70, if no notification referred to in section 25, 29, 30 or 71 has been made for the operation, and unless otherwise provided by decision of the Ministry of Trade and Industry.

In addition, a supervisor of industrial handling and storage referred to in section 38 shall be appointed for the operation referred to in paragraph 1 above within one year from the entry into force of the classification decision, unless a supervisor of the operation has been appointed previously and unless otherwise provided by decision of the Ministry of Trade and Industry.

Section 74

Storage areas for flammable liquids

In the case of a storage area as referred to in section 47 of this Decree which has started operations before this Decree comes into force but which has not been ratified as a storage area in accordance with section 51 of the Decree on Flammable Liquids, the establishments, or the local authority, owner or proprietor of the area authorized by them, or some other representative of the establishments shall apply for ratification of the area as a storage area by September 1, 1991.



Section 74a (24.1.1995/87)

Miscellaneous provisions

What is provided in and under this Decree on the water and environment districts shall apply to the regional environment centres.

Section 75

Supervisors of industrial handling and storage begun before the Decree comes into force

A supervisor of industrial handling and storage as referred to in section 38 shall be appointed for a facility for large or medium-scale industrial handling or storage that started operations before this Decree comes into force. The appointment shall be made not later than September 1, 1991.

A supervisor of industrial handling and storage as referred to above in paragraph 1 need not be appointed for a facility if a supervisor of industrial handling and storage as referred to in the Decree on Flammable Liquids or a manager in charge as referred to in the Decree on Toxic Substances (492/80) has been approved for the facility before this Decree comes into force.

Section 76

Managers in charge, supervisors of industrial handling and storage approved before the Decree comes into force

It is considered that the inspection certificates of a supervisor of industrial handling and storage as referred to in the Decree on Flammable Liquids and the inspection certificate of the manager in charge as referred to in the Decree on Toxic Substances correspond to the certificate referred to in section 39 of this Decree.

A Technical Inspection Centre district office may, however, require that a manager in charge, supervisor of industrial handling or storage approved before this Decree comes into force pass a test as referred to in section 39 before he can be appointed to a new job as supervisor of industrial handling and storage if:

- 1) the job is in a facility that differs essentially from the facility where the person worked previously as a manager in charge, supervisor of industrial handling or storage; or
- 2) the person has not worked as a manager in charge, supervisor of industrial handling or storage or as their deputies in the last three years.

Section 77

Handling cases pending

A case pending under the Decree on Flammable Liquids in the Technical Inspection Centre, a Technical Inspection Centre district office, a provincial government, a city administrative court, a police district chief, a sheriff or a fire chief

before this Decree comes into force shall be handled and decided in accordance with the regulations issued on flammable liquids. Section 70 of the Chemicals Act contains provisions on the handling and decision of matters pending under the Act on Toxic Substances.

—
This Decree comes into force on September 1, 1992.

12.7.1993/673:

A party need not apply for a permit for large or medium-scale industrial handling or storage of substances dangerous for the environment, nor make a notification, if said party:

- 1) has a permit for industrial handling or storage at the time when this Decree comes into force, or has made a notification on operations concerning industrial handling or storage of a chemical;
- 2) has a permit for manufacturing a poison referred to in the Poisons Act and applying to the operations in question;
- 3) has a permit for manufacture, technical use, storage or handling of a flammable liquid referred to in the Decree on Flammable Liquids; or
- 4) has had its operations approved in an inspection by the fire authorities as provided in the Decree on Flammable Liquids.

An establishment that does not have a permit or approval referred to in paragraph 1 for the operation in question shall submit a notification on any large or medium-scale industrial handling or storage of substances dangerous for the environment commenced before the entry into force of this Decree to the Technical Inspection Centre or its district office no later than August 1, 1994.

A party need not make a notification concerning small-scale industrial handling or storage of a chemical dangerous for health or a substance dangerous for the environment if said party:

- 1) has a permit for manufacturing a poison referred to in the Poisons Act and applying to the operations in question;
- 2) has a permit for manufacture, technical use, storage or handling of a flammable liquid referred to in the Decree on Flammable Liquids;
- 3) has had its operations approved in an inspection by the fire authorities as provided in the Decree on Flammable Liquids;
- 4) has made notification on manufacture or importation for sale of a chemical dangerous for health in accordance with section 36 of the Chemicals Act, as it appears in the Act issued on August 14, 1989; or
- 5) has made a notification referred to in this Decree on small-scale industrial handling or storage of a flammable gas or a flammable liquid to the municipal fire chief.

An establishment that does not have the permit or approval referred to in paragraph 3 for the operation in question or has not made the notification referred to in



paragraph 3 for the operation shall notify the municipal chemicals supervisory authority no later than on August 1, 1994 of such small-scale industrial handling or storage of a chemical dangerous for health or a substance dangerous for the environment that has been started before the entry into force of this Decree.

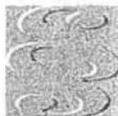
If a manufacturer of tanks intended for flammable gases or flammable liquids referred to in section 50a has in its employment a supervisor of manufacture approved under section 50 of the Ministry of Trade and Industry Decision on Flammable Liquids, the notification concerning the person in charge referred to in section 50a, paragraph 2, need not be submitted to the district office of the Technical Inspection Centre. In this case the obligations provided in section 50a for the person in charge apply to the supervisor of manufacture.

APPENDIX I

Determination of the need for permits and notifications

Coefficients for various substances

Acetaldehyde	50
Acetic acid (concentration > 90%)	10
Acetic acid (concentration 25-90%)	2
Acetic anhydride	2
Acetone	10
Acetonitrile	15
Acetyl chloride	10
Acetylene	50
Acrylonitrile	15
Allylamine	15
Ammonia	100
Ammonia solution (concentration > 35%)	10
Amyl alcohol	2
Arsenic pentoxide	100
Arsenic trioxide	100
Barium carbonate	1
Benzene	15
Boron tribromide	100
Bromomethane	100
Butadiene	100
Butane	50
Butanol	2
Butene	50
i-Butyl acetate	10
n-Butyl acetate	2
Butylene glycol	2
Calcium chloride	1
Calcium hypochlorite	10
Carbon disulphide	100
Carbon monoxide	100
Carbon tetrachloride	100
Chlorine	100
Chlorine dioxide	100
Chloroacetic acid	10
Chlorosulphonic acid	10
Chromic acid (chromium trioxide)	15
Chromium sulphuric acid	15
Chromyl chloride	15
Creosote oil	10
Cyclohexane	10
1,1-Dichloroethane	10
1,2-Dichloroethane	15
Diesel oil	1
Diethylamine	10
Diethylene glycol	2
Diethyl ether	50
Diethyl ketone	10
Dimethyl ether	50
Dimethyl sulphate	100
Diphenylamine	10



Epichlorohydrin	10	Potassium hydroxide (concentration > 5%)	10
Ethane	50	Potassium hydroxide (concentration 1-5%)	1
Ethanol	10	Propane	50
Ethanolamine	2	Propanol	10
Ethyl acetate	10	Propionic acid (concentration > 10%)	2
Ethylene	50	Propylene	50
Ethylene glycol	1	1,2-Propylene oxide	50
Ethylene oxide	100	1,3-Propylene oxide	10
Ethyl glycol acetate	2	Sodium chlorate	2
Fluosulphonic acid	10	Sodium cyanide	100
Formaldehyde (concentration > 30%)	15	Sodium dithionite	1
Formaldehyde (concentration 5-30%)	2	Sodium hydroxide (concentration > 5%)	10
Formic acid (concentration > 90%)	10	Sodium hydroxide (concentration 1-5%)	1
Formic acid (concentration 25-90%)	2	Sodium hypochlorite (concentration > 5%)	10
Fuel oils	1	Sodium peroxide	10
Furfural	10	Sodium sulphide	10
Gasoline	15	Styrene	2
Hexane	10	Sulphur dioxide	100
Hydrazine (concentration > 16%)	15	Sulphur trioxide	100
Hydrochloric acid (concentration > 25%)	2	Sulphuric acid (concentration > 15%)	10
Hydrochloric acid (concentration 10-25%)	1	Sulphuric acid (concentration 5-15%)	1
Hydrofluoric acid	100	Sulphuric acid/nitric acid mixture (concentration of nitric acid > 30%)	15
Hydrogen	50	Sulphuryl chloride	2
Hydrogen cyanide	100	Tetrachloroethylene	1
Hydrogen peroxide (concentration > 60%)	10	Tetraethyllead	100
Hydrogen peroxide (concentration 20-60%)	2	Tetrahydrofuran	10
Hydrogen sulphide	100	Tetramethyllead	100
Isopropyl acetate	10	Thionyl chloride	2
Isopropyl alcohol	10	Toluene	15
Lead chromate	10	Trichloroethylene	1
Lead oxides	1	Trifluoroacetic acid (concentration > 10%)	10
Maleic anhydride	1	Trifluoroacetic acid (concentration 2-10%)	2
Manganese dioxide	1	Turpentine	2
Mercury	15	Vandadium pentoxide	10
Methacrylic acid	2	Vinyl acetate	10
Methane	50	Vinyl chloride	100
Methanol	15	Xylene	2
Methyl chloride	50	Zinc chloride	2
Methylene chloride	1		
Methyl ethyl ether	50		
Methyl ethyl ketone	10		
Methyl isobutyl ketone	10		
Morpholine	2		
Nitric acid (concentration > 20%)	10		
Nitrogen oxides	100		
Octanol	1		
Oleum	10		
Oxalic acid	1		
Pentachlorophenol	10		
Perchloric acid (concentration > 50%)	10		
Perchloric acid (concentration 10-50%)	2		
Petroleums	2		
Phenol	15		
Phosphoric acid (concentration > 10%)	2		
Phthalic anhydride	1		
alpha-Pinene	2		
Potassium cyanide	100		



APPENDIX II (3.8.1992/703)

Facilities covered by the provisions on the prevention of major-accident hazards

- 1 Manufacture, use and processing of organic and inorganic chemicals using various methods, such as:
 - alkylation
 - amination by ammonolysis
 - carbonylation
 - condensation
 - dehydrogenation
 - esterification
 - halogenation and manufacture of halogens
 - hydrogenation
 - hydrolysis
 - oxidation
 - polymerization
 - sulphonation
 - desulphurization, manufacture and transformation of sulphur-containing compounds
 - nitration and manufacture of nitrogen-containing compounds
 - manufacture of phosphorus-containing compounds
 - formulation of pesticides and of pharmaceutical products
 - distillation
 - extraction
 - solvation
 - mixing
- 2 Distillation, refining or other processing of petroleum or petroleum products
- 3 Total or partial disposal of solid or liquid substances by incineration or chemical decomposition
- 4 Production of liquefied petroleum gas, natural gas, town gas and comparable energy gases and use and processing of town gas and comparable gases
- 5 Dry distillation of coal or lignite (brown coal)
- 6 Manufacture of metals or non-metals by the wet process or by means of electrical energy.

APPENDIX III (3.8.1992/703)

Chemicals that, when stored, require that the establishment conduct an assessment of the hazard, as referred to in section 59b, or compile a safety report as referred to in section 59c

If the quantity of chemicals referred to in the tables in part I or part II and kept in a store equals or may equal the quantities specified in column 1, a report as referred to in section 59b shall be drawn up on the store. If the quantity of chemicals in the store equals or may equal the quantities specified in column 2, a safety assessment as referred to in section 59c shall be conducted. If the store belongs to a facility that is required to draw up a report as referred to in section 59b on the grounds that chemicals referred to in Appendix V are handled there, or to a facility referred to in Appendix IV which is required to draw up a report as referred to in section 59c, the store is taken into account in these reports, and no separate report on it need be given.

In calculating the quantities, stores or store groups under one and the same establishment and located nearer than 500 m to each other are taken into account. If necessary, stores or store groups located farther from each other are also taken into account if the distance between the stores is not sufficient to prevent an enhanced hazard of a major accident because of the stores, when all foreseeable situations are considered.



PART I Named chemicals

Where a chemical mentioned in this list also falls within a category in part II, the quantities set out in this list shall be used.

Chemical	Quantity (tonnes)	
	Column 1	Column 2
Acetylene	5	50
Acrylonitrile	20	200
Ammonia	50	500
Ammonium nitrate ¹⁾	350	2 500
Ammonium nitrate in the form of fertilizers ²⁾	1 250	10 000
Bromine	50	500
Bromomethane (methyl bromide)	20	200
Carbon disulphide	20	200
Chlorine	10	75
1,2-Dibromoethane (ethylene dibromide)	5	50
Diphenyl methane di-isocyanate (MDI)	20	200
Ethylene oxide	5	50
Formaldehyde (concentration \geq 90%)	5	50
Hydrogen	5	50
Hydrogen chloride (liquefied)	25	250
Hydrogen cyanide	5	20
Hydrogen fluoride	5	50
Hydrogen sulphide	5	50
Methyl isocyanate	0.15	0.15
Oxygen	200	2 000
Phosgene	0.75	0.75
2-Propenal (acrolein)	20	200
Propylene oxide	5	50
Sodium chlorate	25	250
Sulphur dioxide	25	250
Sulphur trioxide	15	100
Tetraethyl lead or tetramethyl lead	5	50
Toluene di-isocyanate (TDI)	10	100

¹⁾ Ammonium nitrate and mixtures containing ammonium nitrate where the nitrogen content derived from the ammonium nitrate exceeds 28% by weight, and aqueous solutions of ammonium nitrate where the concentration of ammonium nitrate exceeds 90% by weight.

²⁾ Straight ammonium nitrate fertilizers that have passed explosive risk tests, and compound fertilizers where the nitrogen content derived from the ammonium nitrate exceeds 28% by weight.

PART II Categories of chemicals

The quantities of all chemicals in a category are summed up.

Category ¹⁾	Quantity (tonnes)	
	Column 1	Column 2
1. Very toxic (T+) chemicals	5	20
2. Very toxic (T+), toxic (T) ²⁾ , oxidizing (O) and explosive (E) chemicals in total	10	200
3. Highly flammable gases	50	200
4. Extremely flammable (F+) and highly flammable (F) liquids	5 000	50 000

¹⁾ The classification conforms to the Chemicals Decree (620/90) and regulations issued by virtue of it.

²⁾ When the state of the substances and the circumstances are such that the chemicals may cause a major-accident hazard.



**APPENDIX IV
(3.8.1992/703)**

Chemicals that, when handled at a facility, require a safety assessment as referred to in section 59c

If a facility mentioned in Appendix II manufactures, uses, stores or creates as a by-product or waste any of the chemicals listed below, to the extent that the quantity of one or more of the chemicals at the facility is or may be as high as the quantity mentioned in the list, a safety assessment as referred to in section 59c shall be conducted on the facility.

In calculating the quantities, installations or installation groups under one and the same establishment and located nearer than 500 m to each other are taken into account. If necessary, installations or installation groups located farther from each other are also taken into account if the distance between the installations is not sufficient to prevent an enhanced hazard of a major accident because of the installations, when all foreseeable situations are considered.

Chemical	Quantity (tonnes)
Acetylene (ethyne)	50
Acrylonitrile	200
Aldicarb	0.1
Allylamine	200
4-Aminodiphenyl	0.001
Amiton	0.001
Ammonia	500
Ammonium nitrate ¹⁾	2 500
Ammonium nitrate in the form of fertilizers ²⁾	5 000
Anabasine	0.1
Antimony hydride (stibine)	0.1
Arsenic hydride (arsine)	0.01
Arsenic pentoxide, arsenic (V) acid and its salts	0.5
Arsenic trioxide, arsenious (III) acid and salts	0.1
Azinphos-ethyl	0.1
Azinphos-methyl	0.1
Barium azide	50
Benzidine	0.001
Benzidine salts	0.001
Beryllium (powders, compounds)	0.01
Bis(2-chloroethyl)sulphide	0.001
Bis(chloromethyl)ether	0.001
2,2-Bis(tert-butylperoxy)butane (concentration $\geq 70\%$)	50
1,1-Bis(tert-butylperoxy)cyclohexane (concentration $\geq 80\%$)	50
Bis(2,4,6-trinitrophenyl)amine	50
Bromine	500
Bromomethane (methyl bromide)	200
tert-Butyl peroxyacetate (concentration $\geq 70\%$)	50
tert-Butyl peroxyisobutyrate (concentration $\geq 80\%$)	50
tert-Butyl peroxy isopropyl carbonate (concentration $\geq 80\%$)	50
tert-Butyl peroxy maleate (concentration $\geq 80\%$)	50
tert-Butyl peroxy pivalate (concentration $\geq 77\%$)	50

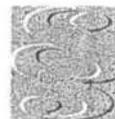
Carbofuran	0.1
Carbon disulphide	200
Carbonyl chloride (phosgene)	0.75
Carbophenothion	0.1
Cellulose nitrate (containing > 12.6% nitrogen)	100
Chlorfenvinphos	0.1
Chlorine	25
4-Chloroformyl morpholine	0.001
Chloromethyl methyl ether	0.001
Chlorotrinitrobenzene	50
Cobalt metal, oxides, carbonates, sulphides, as powders	1
Crimidine	0.1
2-Cyanopropan-2-ol (acetone cyanohydrin)	200
Cyanthoate	0.1
Cycloheximide	0.1
Cyclotetramethylene tetranitramine	50
Cyclotrimethylene trinitramine	50
Demeton	0.1
2,2-Dihydroperoxypropane (concentration $\geq 30\%$)	50
Di-isobutyl peroxide (concentration $\geq 50\%$)	50
Di-n-propyl peroxydicarbonate (concentration $\geq 80\%$)	50
Di-sec-butyl peroxydicarbonate (concentration $\geq 80\%$)	50
Dialifos	0.1
Diazodinitrophenol	10
Dibenzyl peroxydicarbonate (concentration $\geq 90\%$)	50
1,2-Dibromoethane (ethylene dibromide)	50
Diethyl peroxydicarbonate (concentration $\geq 30\%$)	50
0,0-Diethyl S-ethylsulphinylmethyl phosphorothioate	0.1
0,0-Diethyl S-ethylsulphonylmethyl phosphorothioate	0.1
0,0-Diethyl S-ethylthiomethyl phosphorothioate	0.1
0,0-Diethyl S-isopropylthiomethyl phosphorodithioate	0.1
0,0-Diethyl S-propylthiomethyl phosphorodithioate	0.1
Diethylene glycol dinitrate	10
Dimefox	0.1
Dimethylcarbamoyl chloride	0.001
Dimethylnitrosamine	0.001
Dimethyl phosphoramidocyanidic acid	1
Dinitrophenol, salts	50
Diphacinone	0.1
Disulfoton	0.1
EPN	0.1
Ethion	0.1
Ethylene glycol dinitrate	10
Ethyleneimine	50
Ethylene oxide	50
Ethyl nitrate	50
Extremely flammable and highly flammable liquids	50 000
Flammable gases	200
Flammable liquids, where processing conditions (high pressure and temperature) may create major-accident hazards	200
Fluonitil	0.1
Fluoroacetic acid	0.001
Fluoroacetic acid, amides	0.001
Fluoroacetic acid, esters	0.001
Fluoroacetic acid, salts	0.001
4-Fluorobutyric acid	0.001



4-Fluorobutyric acid, amides	0.001	Phorate	0.1
4-Fluorobutyric acid, esters	0.001	Phosacetim	0.1
4-Fluorobutyric acid, salts	0.001	Phosphamidon	0.1
4-Fluorocrotonic acid	0.001	Promurit (1-(3,4-dichlorophenyl)-3-triazenethio-carboxamide)	0.1
4-Fluorocrotonic acid, amides	0.001	1,3-Propanesultone	0.001
4-Fluorocrotonic acid, esters	0.001	2-Propenal (acrolein)	200
4-Fluorocrotonic acid, salts	0.001	1-Propen-2-chloro-1,3-diol-diacetate	0.01
4-Fluoro-2-hydroxybutyric acid	0.001	2-Propenol (allyl alcohol)	200
4-Fluoro-2-hydroxybutyric acid, amides	0.001	Propyleneimine	50
4-Fluoro-2-hydroxybutyric acid, esters	0.001	Propylene oxide	50
4-Fluoro-2-hydroxybutyric acid, salts	0.001	Pyrazoxon	0.1
Formaldehyde (concentration \geq 90%)	50	Selenium hexafluoride	0.01
1-Guanyl-4-nitrosaminoguanyl-1-tetrazene	10	Sodium chlorate	250
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.1	Sodium picramate	50
Hexamethylphosphoramide	0.001	Sodium selenite	0.1
3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetroxacyclononane (concentration \geq 75%)	50	Sulfotep	0.1
2,2',4,4',6,6'-Hexanitrostilbene	50	Sulphur dichloride	1
Hydrazine nitrate	50	Sulphur dioxide	250
Hydrogen	50	Sulphur trioxide	75
Hydrogen chloride (liquefied gas)	250	Tellurium hexafluoride	0.1
Hydrogen cyanide	20	TEPP	0.1
Hydrogen fluoride	50	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.001
Hydrogen phosphide (phosphine)	0.1	Tetraethyl lead	50
Hydrogen selenide	0.01	Tetramethylenedisulphotetramine	0.001
Hydrogen sulphide	50	Tetramethyl lead	50
Hydroxyacetonitrile (glycolonitrile)	0.1	Thionazin	0.1
Isobenzan	0.1	Tirpate (2,4-dimethyl-1,3-dithiolane-2-carboxaldehyde 0-methylcarbamoyloxime)	0.1
Isodrin	0.1	1,3,5-Triamino-2,4,6-trinitrobenzene	50
Juglone (5-hydroxynaphthalene-1,4-dione)	0.1	Trichloromethanesulphenyl chloride	0.1
Lead azide	50	1-Tri(cyclohexyl) stannyl-1H-1,2,4-triazole	0.1
Lead 3,4,6-trinitroresorcinoxide (lead styphnate)	50	Triethylenemelamine	0.01
Mercury fulminate	10	Trinitroaniline	50
4,4'-Methylenebis (2-chloroaniline)	0.01	2,4,6-Trinitroanisole	50
Methyl ethyl ketone peroxide (concentration \geq 60%)	50	Trinitrobenzene	50
Methyl isobutyl ketone peroxide (concentration \geq 60%)	50	Trinitrobenzoic acid	50
Methyl isocyanate	0.15	Trinitrocresol	50
N-Methyl-N,2,4,6-N-tetranitroaniline	50	2,4,6-Trinitrophenol (picric acid)	50
Mevinphos	0.1	2,4,6-Trinitrophenotole	50
2-Naphthylamine	0.001	2,4,6-Trinitroresorcinol (styphnic acid)	50
Nickel metal, oxides, carbonates, sulphides, as powders	1	2,4,6-Trinitrotoluene	50
Nickel tetracarbonyl	0.01	Warfarin	0.1
Nitrogen oxides	50		
Nitroglycerine	10		
Oxydisulfoton	0.1		
Oxygen difluoride	0.01		
Oxygen, liquefied	2000		
Paraoxon (diethyl 4-nitrophenyl phosphate)	0.1		
Parathion	0.1		
Parathion-methyl	0.1		
Pentaborane	0.1		
Pentaerythritol tetranitrate	50		
Peracetic acid (concentration \geq 60%)	50		
Phensulfothion	0.1		

¹⁾ Ammonium nitrate and mixtures containing ammonium nitrate where the nitrogen content derived from the ammonium nitrate exceeds 28% by weight, and aqueous solutions of ammonium nitrate where the concentration of ammonium nitrate exceeds 90% by weight.

²⁾ Straight ammonium nitrate fertilizers that have passed explosive risk tests, and compound fertilizers where the nitrogen content derived from the ammonium nitrate exceeds 28% by weight.



APPENDIX V (3.8.1992/703)

Chemicals that, when handled at a facility, require an assessment of the hazard as referred to in section 59b

A) Very toxic chemicals:

- Chemicals, the toxicity of which correspond to the first line of Table 1.
- Chemicals, the toxicity of which correspond to the second line of Table 1 and which, owing to their physical and chemical properties, are capable of causing major-accident hazards similar to those caused by the chemicals mentioned in the first line.

Table 1

LD ₅₀ (oral) ¹⁾ mg/kg	LD ₅₀ (dermal) ²⁾ mg/kg	LC ₅₀ (inhalation) ³⁾ mg/l
LD ₅₀ ≤ 5	LD ₅₀ ≤ 10	LC ₅₀ ≤ 0.1
5 < LD ₅₀ ≤ 25	10 < LD ₅₀ ≤ 50	0.1 < LC ₅₀ ≤ 0.5

¹⁾ LD₅₀ oral for rats

²⁾ LD₅₀ dermal for rats or rabbits

³⁾ LC₅₀ by inhalation (four hours) for rats

B) Other toxic chemicals:

Chemicals, the acute toxicity of which corresponds to Table 2 and which, owing to their physical and chemical properties are capable of causing major-accident hazards.

Table 2

LD50 (oral) ¹⁾ mg/kg	LD50 (dermal) ²⁾ mg/kg	LC50 (inhalation) ³⁾ mg/l
25 < LD ₅₀ ≤ 200	50 < LD ₅₀ ≤ 400	0.5 < LC ₅₀ ≤ 2

¹⁾ LD₅₀ oral for rats

²⁾ LD₅₀ dermal for rats or rabbits

³⁾ LC₅₀ by inhalation (four hours) for rats

C) Chemicals that may cause a fire hazard:

Flammable gases, extremely flammable and highly flammable liquids and, when particular processing conditions, such as high pressure and temperature, may create major-accident hazards, liquids classified as flammable.

D) Oxidizing chemicals:

Chemicals which give rise to a highly exothermic reaction when in contact with other chemicals, particularly chemicals that may cause a fire hazard.

APPENDIX VI (3.8.1992/703)

Advance information to be supplied to the public concerning major accidents

- a) name of company and location of facility;
- b) identification, by position held in the company, of the person giving the information;
- c) confirmation that the facility is subject to the provisions on the prevention of major-accident hazards given in chapter 9a of this Decree, and that the report referred to in section 59c has been submitted to the Safety Technology Authority;
- d) a general description of the operations carried out at the facility;
- e) the common names or, in the case of storage covered by Appendix III, part II, the generic names or the general danger classification of the chemicals that are handled or stored at the facility and that could give rise to a major accident, with an indication of their principal dangerous characteristics;
- f) general information relating to the nature of the major-accident hazards, including their potential effects on the population and the environment;
- g) adequate information on how the population concerned will be warned and kept informed in the event of an accident;
- h) adequate information on the action the population concerned should take, and how they should behave, in the event of an accident;
- i) confirmation that the company is required to make adequate arrangements on site, including liaison with the local rescue authorities, to prevent accidents and to minimize their effects;
- j) a reference to the off-site emergency plan drawn up by the local rescue authorities. The public should, further, be advised to comply with any instructions or requests from the rescue authorities in the event of an accident; and
- k) details of where further relevant information can be obtained.