Safety Data Sheets for Hazardous Chemicals

Information Sheet

Updated Sept 2018

In accordance with the REACH Regulation (Regulation (EC) No. 1907/2006), a safety data sheet (SDS) should be supplied with any hazardous chemical. Safety data sheets (SDSs) provide useful information on chemicals, describing the hazards the chemical presents, and giving information on handling, storage and emergency measures in case of an accident. Over the coming years, SDSs may include further information on safe handling, in the form of exposure scenarios. REACH requires users of hazardous chemicals to follow the advice on risk management measures given in the exposure scenario, where provided.

The Safety Data Sheet must contain the following 16 headings:

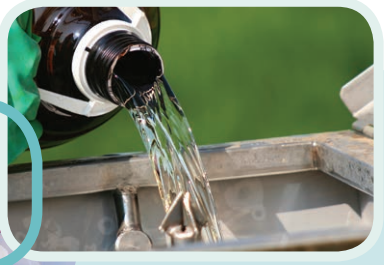
1. Identification of the substance/ mixture and of the company/undertaking
2. Hazards identification
3. Composition/information on ingredients
4. First aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/personal protection
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. Ecological information
13. Disposal considerations
14. Transport information
15. Regulatory information
16. Other information

Safety Data Sheets must be provided for:

- ☑ Chemicals classified as hazardous in accordance with Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP)
- ☑ Substances meeting the criteria as persistent, bio-accumulative and toxic (PBT) or very persistent very bio-accumulative (vPvB) to the environment in accordance with REACH
- ☑ Substances which appear on ECHA's Candidate List of substances of very high concern (SVHC) for a reason other than either of the two points above
- ☑ Mixtures (upon request of the downstream user/ distributor) which themselves are not classified under CLP but which contain at least one substance that is:
  - classified as hazardous to health or the environment above concentration limits set out in Article 31(3) of REACH;
  - a PBT or vPvB at a concentration ≥0.1% w/w;
  - on the Candidate List of SVHCs at a concentration ≥0.1% w/w for a reason other than either of the two points above;
  - assigned an EU limit value for exposure at the workplace (OELV).

A Safety Data Sheet must be:

- ☑ Prepared by a competent person
- ☑ In an official language(s) of Member State where the chemical is being placed on the market
- ☑ In the required 16 heading format
- ☑ Specific to the chemical
- ☑ Clear and understandable
- ☑ Provided free of charge, either on paper or electronically
- ☑ Provided no later than at the time of first delivery
- ☑ Updated when new information on the chemical becomes available or when an authorisation is granted or refused or a relevant restriction is imposed under REACH
- ☑ Provided to everyone who has received the chemical during the previous 12 months upon update or revision
- ☑ Dated and the pages numbered.



HEALTH AND SAFETY AUTHORITY

What information should be taken account of in a Safety Data Sheet?

There is an obligation on users of chemicals to take measures to protect both humans and the environment from any hazards associated with the chemicals. Therefore, it is important that the information provided in the safety data sheet is taken into account and used to prepare a chemical risk assessment for the workplace. Information on chemicals in the workplace must be provided to all employees and the SDS is a useful tool in communicating the hazards of these chemicals and the measures of protection to be taken when using them.

Each section of the SDS contains specific information relating to the chemical.

Section 1 contains contact details of the person/company responsible for supplying the chemical, the uses of the chemical, as well as the telephone number to contact in case of an emergency (see details on page 4 of this info sheet).

Section 2 gives details on the hazards of the chemical and the potential effects and symptoms resulting from use. This will help in the assessment of the risks to health, the health of workers and the environment. All hazardous substances and mixtures must be classified and labelled according to the CLP Regulation. Therefore, pictograms, the signal word, hazard and precautionary statements must appear in section 2. The information in this section must be consistent with the information on the label.

Section 3 This section provides information on the identity, hazards and concentration of individual substances in a mixture. In the case of a SDS for a substance, this section provides the identity of the substance.

Section 4 describes the necessary first aid measures to be taken in case of an accident.

Section 5 gives specific information on fighting a fire caused by the chemical, including the most suitable extinguishing media and protective equipment.

SAFETY DATA SHEET
CleanIt **Date of Issue: June 2015**

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Product identifier: ABC XYZ chemical
Trade Name: Industrial Cleaner Synonyms: CleanIt
1.2 Relevant identified uses of the substance or mixture and uses advised against: Used as a cleaner
1.3 Details of the supplier of the safety data sheet:
Company name: Acme Cleaning Ltd., 1 Acme Lane, Ind. Estate, Dublin 123
Telephone number: 01 234 5678
E-mail of responsible person for SDS: tom.acme@cleaning.com
1.4 Emergency telephone number
Emergency telephone number: 01 123 4567 (Poisons Centre number)

2. Hazards Identification

2.1 Classification of the mixture:
Eye Irritant 2, H319
Skin Irritant 2, H315
2.2 Label elements:
Labelling according to Regulation (EC) No 1272/2008:
Pictogram: **Signal Word:** Warning
Hazard Statements: H319 Causes serious eye irritation
H315 Causes skin irritation
Precautionary Statements: Precautionary statements as assigned
More precautionary statements
More precautionary statements
Precautionary statements

2.3 Other Hazards: There are no known other hazards

3. Composition/Information on Ingredients

Name	EC No.	CAS No.	Content	Classification
ABC	123-456-0	1234-56-7	<1%	Skin Corr. Cat. 1B H314
XYZ	123-789-0	1234-56-0	>99%	Skin irrit. 2 H315, Eye irrit. 2 H319

4. First Aid Measures

4.1 Description of First Aid Measures: Get medical attention if any discomfort continues.
4.2 Most important symptoms and effects, both acute and delayed:
Inhalation: Remove victim immediately from source of exposure.
Ingestion: Rinse mouth thoroughly. Drink plenty of water. Get medical attention immediately
Skin Contact: Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Use suitable lotion to moisturise skin. Get medical attention if irritation persists
Eye Contact: Promptly wash eyes with plenty of water while lifting the eye lids. Remove any contact lenses
4.3 Indication of any immediate medical attention and special treatment needed: Get medical attention if any discomfort continues.

5. Fire-Fighting Measures

5.1 Extinguishing Media
This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.
5.2 Special Hazards arising from the substance or mixture
Fire causes formation of toxic gases.
5.3 Advice for Fire Fighters
Fire fighters must wear the following:
Equipment to be worn

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Section 6 describes what actions need to be taken if there is an accidental release of the chemical.

Section 7 contains details on how to handle and store the chemical safely.

Section 8 Section 8 gives details of the steps needed to reduce exposure, e.g. ventilation and personal protective equipment (PPE) necessary to protect health, as well as occupational exposure limit (OEL) values where required.

Sections 9, 11 and **12** provide detailed information on the physical/chemical, toxicological and ecological properties of the chemical.

Section 10 contains details of any hazardous reactions that may occur if the chemical is used under certain conditions.

Section 13 explains how the chemical should be disposed of correctly.

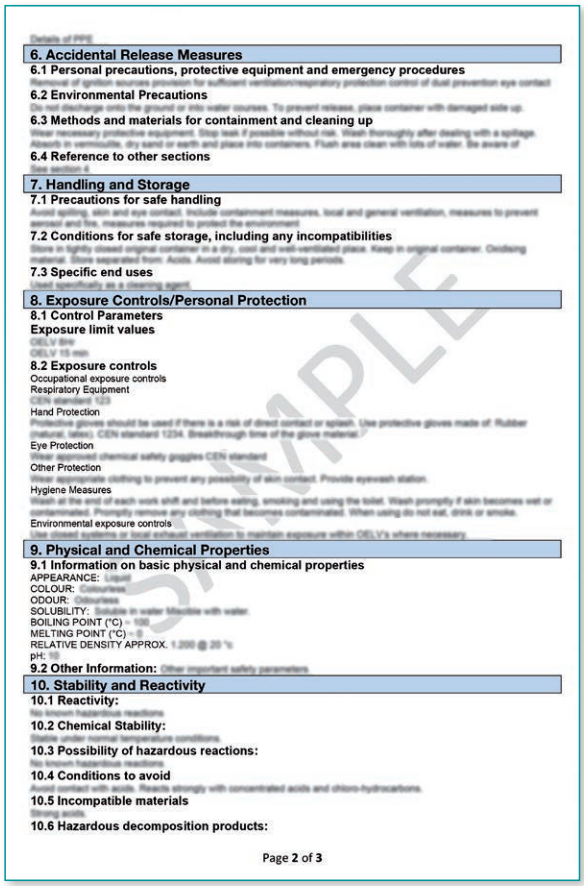
Section 14 contains information relating to the transportation of the chemical.

Section 15 contains details on relevant EU/national legislation.

Section 16 gives any other information relevant to the chemical e.g. training advice, full text of hazard statements etc.

In addition, SDSs for substances or for mixtures containing substances that have been registered under REACH are required to include:

- Registration numbers where appropriate
- Exposure Scenarios including any risk management measures required, in an Annex to the SDS for hazardous substances registered at >10 tonnes/year.



Details of PPE

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Removal of ignition sources provision for sufficient ventilation/respiratory protection control of dust prevention eye contact

6.2 Environmental Precautions

Do not discharge onto the ground or into water courses. To prevent release, place container with damaged side up.

6.3 Methods and materials for containment and cleaning up

Wear necessary protective equipment. Stop leak if possible without risk. Wash thoroughly after dealing with a spillage. Absorb in vermiculite, dry sand or earth and place into containers. Flush area clean with lots of water. Be aware of

6.4 Reference to other sections

See section 8

7. Handling and Storage

7.1 Precautions for safe handling

Avoid spilling, skin and eye contact. Include containment measures, local and general ventilation, measures to prevent aerosol and fire, measures required to protect the environment

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container. Oxidising material. Store separated from: Acids. Avoid storing for very long periods.

7.3 Specific end uses

Used specifically as a cleaning agent

8. Exposure Controls/Personal Protection

8.1 Control Parameters

Exposure limit values

OELV 8hr

OELV 15 min

8.2 Exposure controls

Occupational exposure controls

Respiratory Equipment

CEN standard 123

Hand Protection

Protective gloves should be used if there is a risk of direct contact or splash. Use protective gloves made of: Rubber (natural, latex). CEN standard 1234. Breakthrough time of the glove material:

Eye Protection

Wear approved chemical safety goggles CEN standard

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact. Provide eyewash station.

Hygiene Measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Environmental exposure controls

Use closed systems or local exhaust ventilation to maintain exposure within OELV's where necessary.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

APPEARANCE: Liquid

COLOUR: Colourless

ODOUR: Odourless

SOLUBILITY: Soluble in water Miscible with water.

BOILING POINT (°C) ~ 100

MELTING POINT (°C) ~ 0

RELATIVE DENSITY APPROX. 1.200 @ 20 °c

pH: 10

9.2 Other Information: Other important safety parameters

10. Stability and Reactivity

10.1 Reactivity:

No known hazardous reactions

10.2 Chemical Stability:

Stable under normal temperature conditions.

10.3 Possibility of hazardous reactions:

No known hazardous reactions

10.4 Conditions to avoid

Avoid contact with acids. Reacts strongly with concentrated acids and chloro-hydrocarbons.

10.5 Incompatible materials

Strong acids

10.6 Hazardous decomposition products:

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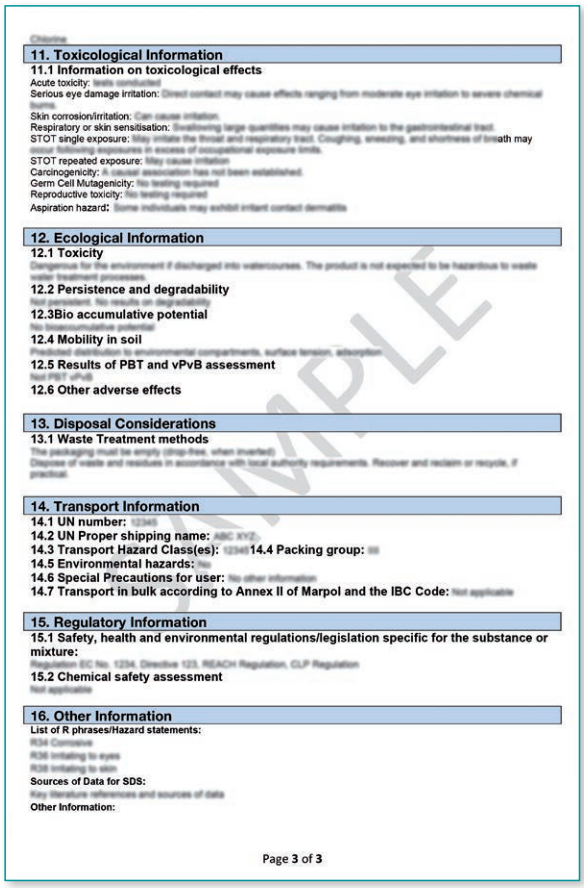

Chlorine

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity: tests conducted

Serious eye damage irritation: Direct contact may cause effects ranging from moderate eye irritation to severe chemical burns.

Skin corrosion/irritation: Can cause irritation

Respiratory or skin sensitisation: Swallowing large quantities may cause irritation to the gastrointestinal tract.

STOT single exposure: May irritate the throat and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of occupational exposure limits.

STOT repeated exposure: May cause irritation

Carcinogenicity: A causal association has not been established.

Germ Cell Mutagenicity: No testing required

Reproductive toxicity: No testing required

Aspiration hazard: Some individuals may exhibit irritant contact dermatitis

12. Ecological Information

12.1 Toxicity

Dangerous for the environment if discharged into watercourses. The product is not expected to be hazardous to waste water treatment processes.

12.2 Persistence and degradability

Not persistent. No results on degradability

12.3Bio accumulative potential

No bioaccumulative potential

12.4 Mobility in soil

Predicted distribution to environmental compartments, surface tension, adsorption

12.5 Results of PBT and vPvB assessment

Not PBT vPvB

12.6 Other adverse effects

13. Disposal Considerations

13.1 Waste Treatment methods

The packaging must be empty (drop-free, when inverted)

Dispose of waste and residues in accordance with local authority requirements. Recover and reclaim or recycle, if practical.

14. Transport Information

14.1 UN number: 12345

14.2 UN Proper shipping name: ABC XYZ

14.3 Transport Hazard Class(es): 12345**14.4 Packing group:** III

14.5 Environmental hazards: No

14.6 Special Precautions for user: No other information

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Regulation EC No. 1234, Directive 123, REACH Regulation, CLP Regulation

15.2 Chemical safety assessment

Not applicable

16. Other Information

List of R phrases/Hazard statements:

R34 Corrosive

R36 Irritating to eyes

R38 Irritating to skin

Sources of Data for SDS:

Key literature references and sources of data

Other Information:

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What should be done when a Safety Data Sheet is received?

- ☑ Ensure that there are 16 headings
- ☑ Check that it is in English and is clear and concise
- ☑ Check that it is dated and any revision date and details of revisions are provided
- ☑ Ensure that the details on the chemical's label are exactly as given in section 2 of the SDS
- ☑ Contact the supplier and request an updated version if not satisfied with the information provided
- ☑ Use the information to prepare chemical risk assessments, inform employees of the hazards of the chemical, the protective measures to be taken when using it and the measures to be taken in an emergency
- ☑ Store the SDS, either as a hard copy or electronically, in a place that is known to, and accessible to, all employees
- ☑ It is advisable to keep a chemical inventory of all chemicals on site and SDSs are a useful tool in helping to keep account of all substances in the workplace
- ☑ It is also good practice to regularly check the SDSs to ensure that multiple or out-of-date copies are not being stored
- ☑ If there is an Exposure Scenario annexed to the SDS, ensure the risk management measures relevant to the use of the substance are in place.

Tips for formulators who prepare and supply SDSs to their customers

- ☑ Ensure that the SDS is in compliance with Annex II (as updated by Reg. (EU) No. 2015/830) of the REACH Regulation
- ☑ Ensure that the person responsible for compiling the SDS is competent, that is, that they have the relevant experience, knowledge and training
- ☑ Provide the e-mail details of the competent person in section 1, along with the company's address and telephone number and the emergency number
- ☑ Ensure that the SDS is specific to the chemical being supplied and not generic
- ☑ Ensure that the recipient of the chemical receives a SDS for that chemical free of charge, on paper or electronically, no later than at its time of delivery
- ☑ Where a mixture is not classified itself but contains hazardous substances, ensure a SDS is supplied upon request to downstream users or/ distributors
- ☑ Update the SDS without delay with any new information on the chemical
- ☑ Remember that the classification provided on the label of the chemical must be identical to that given in section 2 of the SDS.

What emergency number should be provided in section 1.4?

For any mixture classified as hazardous on the basis of its health and/or physical effects and placed on the Irish market, it is obligatory for importers and formulators to include the National Poisons Information Centre (NPIC) emergency number in section 1.4. The NPIC emergency number cannot be used in Section 1.4 of an SDS until the notification process is complete. The notification process is explained on the NPIC website **http://www.poisons.ie/Manufacturers/Product-Registration**.

When placing chemical products on the market in other EU Member States, the respective national poison centre number, where established, is required to be included in Section 1.4 of the SDS. Further information is available on the ECHA website under the **National Helpdesk contact details**.

For mixtures which are not classified as hazardous (but do require a SDS based on the presence of hazardous ingredients), mixtures which are classified for environmental hazards only and for substances, reference to an emergency service belonging to the supplier himself or to a competent third party provider of such a service must be made.

Where the supplier provides his own emergency information service, be it alone or in combination with an official advisory body or other provider, the necessary competence should be available.

Any limitations on the official advisory body, the supplier's own, or any third party's services (opening hours or types of information that can be provided) must be indicated.

Further information

The Chemicals web pages on the Health and Safety Authority's web site: **http://www.hsa.ie/eng/Your_Industry/Chemicals/Legislation_Enforcement/REACH/Safety_Data_Sheets/**

Hazard labelling and packaging according to the CLP Regulation Information sheet on the HSA website: **http://www.hsa.ie/eng/Publications_and_Forms/Publications/Chemical_and_Hazardous_Substances/**

Contact our Chemicals Helpdesk with any questions on 1890 289 389 or email chemicals@hsa.ie

Guidance on compilation of Safety Data Sheets available on the web site of the European Chemicals Agency (ECHA) at **https://www.echa.europa.eu/safety-data-sheets**

Further Information and Guidance:

Visit our website at **www.hsa.ie**, telephone our contact centre on **1890 289 389** or email **wcu@hsa.ie**

Use BeSMART, our free online risk assessment tool at **www.besmart.ie**

Check out our range of free online courses at **www.hsalearning.ie**

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