

Safety Data Sheets for Hazardous Chemicals

Information Sheet

July 2010

Safety data sheets 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.

In accordance with the REACH Regulation, a safety data sheet should be provided with any hazardous chemical. Over the coming years, as the REACH Regulation becomes operational, SDSs will include further information on safe handling, in the form of exposure scenarios. REACH also requires users of chemicals to follow the advice on risk management measures given in the exposure scenario.

The Safety Data Sheet must contain the following 16 headings:

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

Safety Data Sheets must be provided for:

- Chemicals classified as hazardous
- Substances which are persistent, bio-accumulative and toxic (PBT) or very persistent very bio-accumulative (vPvB) to the environment
- Substances which appear on ECHA's Candidate List of substances of very high concern (SVHC) for a reason other than either of the 2 points above
- Mixtures (upon request of the user) which are not classified as hazardous but which contain at least one substance that is:
 - classified as hazardous to health or the environment
 - a PBT or vPvB at a concentration $\geq 0.1\%$ w/w
 - on the Candidate List of SVHCs at a concentration $\geq 0.1\%$ w/w for a reason other than either of the 2 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 official language of Member State
- ☒ in required 16 heading format
- ☒ specific to the chemical
- ☒ clear and understandable
- ☒ provided free of charge 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 restriction is imposed under REACH
- ☒ provided upon update or revision to everyone who has received the chemical during the previous 12 months
- ☒ dated and the pages numbered



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 dangers of these chemicals and the measures of protection to be taken when using them.

Each section contains specific information relating to the chemical for which the SDS is prepared.


Section 1 contains contact details of the person / company responsible for supplying the chemical, as well as the telephone number to contact in case of an emergency.

Section 2 gives details on the hazards of the chemical and the potential effects and symptoms resulting from use. This will help you assess the risk to your health, the health of your workers and the environment. The information in this section must be consistent with the information on the label.

Section 3; If the chemical is a mixture, this section will give information on the hazards of each of the individual substances in the mixture.

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 2010	
1. Identification of the substance/mixture and of the company/undertaking				
Identification of the substance/mixture:				
Product identifier: ABC 412 chemical				
Trade Name: Industrial Cleaner Synonyms: Cleaner				
Relevant identified uses of the substance/mixture/Uses advised against: Used as a cleaner				
Company identification				
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				
Emergency telephone				
Emergency telephone number: 01 123 4567 (9am – 5pm)				
2. Hazard Identification				
Classification according to Directive 67/548/EEC:				
Xi: R36/38				
Classification according to Regulation (EC) No 1272/2008:				
Eye Irritant 2, H319				
Skin Irritant 2, H315				
Label elements:				
Labelling				
Pictogram: 				
according to Regulation (EC) No 1272/2008:				
Signal Word: Warning				
Signal Word: Warning				
Hazard Statements: H319 Causes serious eye irritation				
H315 Causes skin irritation				
Precautionary Statements: Precautionary statements as assigned				
Primary route(s) of entry: Inhalation: Yes; Skin - eyes: Yes; Ingestion: Possible in accidental cases				
Human health:				
Inhalation: Irritant, alkaline liquid				
Eyes: Eye contact may cause irritation				
Skin: May cause irritation				
Environment: No data available				
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%	R34
XYZ	123-789-0	1234-56-0	>99%	R36/38
4. First Aid Measures				
General Information: Get medical attention if any discomfort continues.				
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.				
5. Fire-Fighting Measures				
Suitable Extinguishing Media				
This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.				
Extinguishing Material not to be used				
There are no known materials.				
Special Exposure Hazards				
Fire causes formation of toxic gases.				
Special Protective Equipment for Fire Fighters				
Fire fighters must wear the following:				

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 gives details of the steps needed to reduce exposure, e.g. ventilation and the personal protective equipment (PPE) necessary to protect health.

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 the details of the classification of the chemical as given on the label.

Section 16 gives any other information relevant to the chemical e.g. training advice.

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 sections 2 and 15 of the SDS
- ✓ Contact the supplier and request an updated version if not satisfied with the information provided
- ✓ Use the information to inform employees of the dangers 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

<p>6. Accidental Release Measures</p> <p>Personal precautions Removal of spillage: Immediate attention for sufficient ventilation/respiratory protection control of dust prevention eye contact</p> <p>Environmental Precautions Do not discharge into the ground or into water courses. To prevent release, place container with damaged side up</p> <p>Spill Clean Up Methods Spillage: Immediate attention. Stop leak if possible without risk. Wash thoroughly after dealing with a spillage. Hazards in vertebrates: dry sand or earth and place into container. Flush area clean with lots of water. Be aware of potential for surfaces to become slippery. Flush to sewer if local regulations permit.</p>
<p>7. Handling and Storage</p> <p>Handling Avoid spraying, skin and eye contact. Include containment measures, local and general ventilation. Measures to prevent release and fire. Measures required to protect the environment</p> <p>Storage Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container. Double bagging required. Store separated from: Acids. Avoid storing for very long periods.</p> <p>Specific Uses Water specifically as a cleaning agent.</p>
<p>8. Exposure Controls/Personal Protection</p> <p>Exposure limit values OSHA PEL: 10 mg/m³ CELS: 10 mg/m³ NIOSH REL: 10 mg/m³</p> <p>Exposure controls Occupational exposure controls Respiratory Equipment NIOSH standard: N95 Hand Protection Gloves should be used if there is a risk of absorption or contact. Use protective gloves made of: Rubber (natural latex). CE standard: EN 388. Breakthrough time of the glove material.</p> <p>Eye Protection Wear approved chemical safety goggles CE standard</p> <p>Other Protection Wash hands thoroughly to prevent any possibility of skin contact. Provide eyewash station.</p> <p>Hygiene Measures At the end of each work shift and before eating, drinking and using the toilet. Wash thoroughly. If skin becomes wet or contaminated. Thoroughly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.</p> <p>Environmental exposure controls Use closed system and transfer methods. Remove exposure within CE standard where necessary.</p>
<p>9. Physical and Chemical Properties</p> <p>General Information APPEARANCE: Colourless COLOUR: Colourless ODOUR: Odourless</p> <p>Important Health Safety and Environmental Information SOLUBILITY: Insoluble in water. Miscible with water. BOILING POINT (°C): 100 MELTING POINT (°C): 0 RELATIVE DENSITY APPROX.: 1.000 @ 20 °C pH: 7</p> <p>Other Information: Other important safety parameters</p>
<p>10. Stability and Reactivity</p> <p>Stability: Stable under normal temperature conditions.</p> <p>Conditions to avoid Heat, fire, strong oxidising agents. Reacts strongly with concentrated acids and strong hydrocarbons.</p> <p>Materials to avoid Strong acids</p> <p>Hazardous decomposition products: Carbon dioxide</p>

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<p>11. Toxicological Information</p> <p>Acute effects Eye contact: Direct contact may cause effects ranging from moderate eye irritation to severe chemical burns. Skin contact: Can cause irritation. Ingestion: Swallowing large quantities may cause irritation to the gastrointestinal tract. Inhalation: May irritate the throat and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposure to vapours of occupational exposure limits.</p> <p>Chronic effects Inhalation: May cause irritation. Carcinogenicity: A causal association has not been established. Mutagenicity: No testing required. Toxicity for Reproduction: No testing required. Contact dermatitis/Sensitising effects: Some individuals may exhibit irritant contact dermatitis.</p>
<p>12. Ecological Information</p> <p>Ecotoxicity No data available for environment if discharged into watercourses. The product is not expected to be hazardous to waste water treatment processes.</p> <p>Mobility Potential adsorption to environmental particulates, surface tension, solubility.</p> <p>Persistence and degradability/Bio accumulative potential/Results of PBT assessment/Other adverse effects No data available.</p>
<p>13. Disposal Considerations</p> <p>General Information The packaging must be empty (ship free, when marked).</p> <p>Disposal Methods Dispose of waste and residues in accordance with local authority requirements. Recover and reclaim or recycle, if practical.</p>
<p>14. Transport Information</p> <p>UN number: 1200 Class: 3 Proper shipping name: ALC 612 Packing group: III Marine pollutant: No Other applicable information: No other information</p>
<p>15. Regulatory Information</p> <p>Classification and Labelling Hazard: Irritant Risk Phrases/Hazard Statements H314 Irritating to skin and eyes. H332 Irritating to respiratory system. Safety Phrases/Precautionary statements S21 Keep out of the reach of children. S37 Wear suitable gloves. S53 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</p> <p>National Laws: Regulation EC No 1234, Directive 123, REACH Regulation, CLP Regulation</p>
<p>16. Other Information</p> <p>List of R phrases/Hazard statements: R36 Irritating to eyes. R37 Irritating to skin.</p> <p>Sources of Data for SDS: Key literature references and sources of data.</p> <p>Other Information:</p>

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Tips for formulators who prepare and supply SDSs to their customers

- ✓ Ensure that the SDS is in compliance with Annex II 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
- ✓ You must supply a SDS upon request to a professional user if the preparation (mixture) is not classified itself for supply but it does contain hazardous substances as listed above
- ✓ 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 sections 2 and 15 of the SDS.

Why do I see two different symbols on some SDSs?

Classification and labelling details for chemicals are provided in sections 2 and 15 on SDSs. Currently you may notice new pictograms, signal words, hazard statements and precautionary statements in addition to the current symbols, indications of danger, risk and safety phrases (examples of existing and new symbols and pictograms are shown below). This is due to a transitional period until 1 June 2015, during which a


















dual system for classification of substances and preparations (mixtures) exist: the CPL Regulations for Substances and Preparations (S.I. No. 116 of 2003 and S.I. No. 62 of 2004) and the new CLP Regulation (EC) No 1272/2008.

Further Information

The Health and Safety Authority's REACH web site **www.reachright.ie**

Contact our REACH Helpdesk with any questions on 1890 289 389 or email **reachright@hsa.ie**

Guidance on the web site of the European Chemicals Agency (ECHA) at **www.echa.europa.eu**

Existing Indication of Danger & corresponding symbols (CPL)	New Signal words & corresponding pictograms (CLP) From Regulation EC 1272/2008
 Explosive	 Danger or Warning
 Extremely or Highly Flammable	 Danger or Warning
 Oxidising	 Danger or Warning
No match	 Warning
 Corrosive	 Danger or Warning
 Very Toxic or Toxic	 Danger
 Harmful or Irritant	 Warning
 Harmful or Toxic	 Danger
 Dangerous to the Environment	 Hazardous to the Aquatic Environment

