Example safety data sheet for a preparation

SAFETY DATA SHEET

Date of issue: xx/xx/09

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

Identification of the product

Catalogue No: 3456

Product name: Machine Magic

Use of the substance/mixture: degreasant

Manufacturer/supplier identification

Company: CHCS Chemicals Ltd
Nowhere Industrial estate
Notown
XY12 3AB
UK
Tel No.: +44 (0)1234 456890
E-mail: jbloggs@chcschem.co.uk

Emergency telephone No.: +44 (0)1234 567800 (Mon – Fri 08.00-18.00 UK time)

2. Hazards identification

Classification for supply Xi, R36-38; N, R51-53
The product is classified irritant and dangerous for the environment.

Health hazards The product is irritant to skin and eye. Inhalation of mists or sprays may cause irritation to the respiratory system. Inhalation of high vapour concentrations can lead to drowsiness and dizziness. Skin contact may produce an allergic reaction in sensitive individuals. For some ingredients, the hazards have not been thoroughly investigated, so handle with caution.

Environmental hazards The product is toxic to aquatic organisms, and may cause long-term adverse effects in the environment.

Physico-chemical hazards The product has been shown to corrode aluminium.

3. Composition/information on ingredients

See Section 16 'Other information' for full text of the R-phrases.

Declarable components	Conc (%)	EC No.	CAS No.	Classification
1,2,3-Chemhazane	5 to 10	203-806-3	110-82-8	F; R11 - Xn; R65 - Xi, 38 - 67 - N; 50/53
Silicate salt	1 to 5	222-219-9	6843-29-0	C; R34 - Xi; R37
Emulsionyl quaternary	1 to 5	462-511-6	63944-14-2	Xn; R21/22 - C; R34 - N; R50
Lemonyane	<1	502-143-0	183-68-3	R10 – Xi; R38-43 - N, R50-53

Other components

Water	50 to 75	231-791-2	7732-18-5	Not dangerous
Other additives	Each <10			Not dangerous

4. First-aid measures

Skin contact
Seek IMMEDIATE medical attention. Remove contaminated clothing and wash affected area with soap and water. Launder contaminated clothing before re-use.

Eye contact
Seek IMMEDIATE medical attention. In case of contact with eyes, irrigate with water for 15 minutes, occasionally lifting eyelids.

Ingestion
If swallowed, wash out mouth thoroughly and give water to drink. Seek immediate medical attention. Do not induce vomiting, unless instructed by medical personnel.

Inhalation
If adverse effects (eg irritation of the airways, drowsiness or dizziness) occur, especially during heating or spraying operations, remove patient from exposure and give fresh air and rest. Obtain medical attention.

Medical treatment
Show this safety data sheet to medical personnel. Give symptomatic treatment and supportive therapy.

5. Fire-fighting measures

Fire and explosive properties
The product is water based, and not flammable or explosive. However, during heating may give of flammable fumes which may become explosive in confined space.

Extinguishing media
Water spray, carbon dioxide, dry chemical and foam are compatible with the product. Remove containers from fire or cool them with water to reduce the risk of explosion.

Special hazards
When heated sufficiently, product may decompose to form smoke and toxic fumes, gases or vapours. Exposure to vapours from the heated product can cause drowsiness and dizziness. Avoid run-off water entering drains (eg through the use of barriers).

Protective equipment for fire-fighters
Fire fighters should wear an approved self-contained breathing apparatus and full protective clothing.

6. Accidental release measures

Personal precautions
For large-scale spills, ensure full personal protection is worn (see Section 8). Avoid contact with skin and eyes. Do not inhale vapours. Keep unauthorised personnel from the spillage area.

Environmental precautions
Prevent leakage of product into water-courses or drainage system by diking with sand or other absorbent material. Contact authorities, water company, and waste-water treatment plant as appropriate if significant contamination occurs.

Method for cleaning up
Stop the source of leak or release. Clean up spill as soon as possible. Small spills can be mopped up with dry cloth. Collect larger spill using techniques such as sorbent materials or pumping. Place material in suitable container for disposal in accordance with local and national regulations. Wash contaminated surfaces with water, and collect washings for safe disposal. Follow prescribed procedures for responding to large spills and reporting to appropriate authorities.

7. Handling and storage

Information for safe handling Avoid contact with skin and eyes, and inhalation of mists and vapours. Wear protective clothing as in Section 8. Good general ventilation is recommended.

Storage Keep only in the original container. Do not store in aluminium containers. Store in a cool, dry, well-ventilated place, away from direct sunlight. Keep container closed when not in use. Product corrosive to aluminium. Glass containers are recommended.

8. Exposure controls/personal protection

UK exposure limits: 1,2,3-Chemhazane (WEL): 8 h TWA 350 mg/m^3 (100 ppm); short-term exposure limit (15 min) 1050 mg/m^3 (300 ppm).

Other exposure limits 1,2,3-Chemhazane: EU (IOELV) 8 h TWA 700 mg/m^3 (200 ppm).

Exposure controls Good general ventilation is recommended. Where conditions may lead to high airborne concentrations (eg through spraying or heating), local exhaust ventilation may be necessary to ensure that the workplace exposure limit is not exceeded.

Personal protective equipment (PPE)

For professional use, the need for personal protective equipment should be based on a workplace risk assessment for the particular use. Avoid skin contact by wearing chemical resistant gloves (eg rubber, neoprene, PVC) and safety goggles. Where more extensive contact may occur, wear suitable protective clothing (eg apron, sleeves, boots). PPE should be chosen in consultation with the PPE manufacturer.
Wear respiratory protective equipment if exposure to mists or vapours is likely.
PPE should be to European (EN) standards.
Eye wash facilities must be available in the work area.

Environmental exposure controls

Prevent the product from entering drains and watercourses.

9. Physical and chemical properties

Appearance	Yellow mobile liquid
Odour	Lemon
Melting point	<1 °C
Boiling point	Ca. 100 °C
Flash point (typical)	>100 °C
Explosive properties	Not expected for water-based product
Oxidising properties	Not expected for water-based product
Autoignition temperature	Not determined
Vapour pressure	Not determined
Relative density	Not determined
Specific gravity	1.19 (20 °C)
Solubility: in water	Soluble (emulsion)
pH	11.2
Solubility: in solvents	Not determined
Partition coefficient	Not determined
Viscosity	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Corrosivity to metal	Steel 3.75 mm/year; aluminium 7.0 mm/year (UN Manual of Tests and Criteria, Part III, Section 37).

10. Stability and reactivity

Stability	Stable under recommended storage and handling conditions. No hazardous polymerization.
Conditions to avoid	Avoid strong heat.
Materials to avoid	Neutralisation with acid will produce heat. Reacts slowly with metals – do not store in metal containers, and avoid prolonged contact with aluminium equipment.

Hazardous decomposition products

Toxic fumes may be evolved on thermal decomposition.

11. Toxicological information

The preparation has not been tested for toxicological effects. Based on the known effects of the ingredients, the product is classified for human health effects as indicated below.

Acute toxicity	Not expected to be acutely harmful by ingestion, dermal contact or inhalation. Product is irritant, and may cause local damage in contact with tissue of the skin, airways or digestive system. Contains hydrocarbons, and may cause lung-effects if ingested. Exposure to high vapour concentrations of 1,2,3-chemhazane can cause narcotic effects such as drowsiness or dizziness.
Corrosivity/irritation	Product is irritant, and may cause local damage in contact with the eyes and skin. Inhalation of spray or mist will irritate the respiratory system. Ingestion may damage linings of the mouth, throat and gastro-intestinal tract.
Sensitisation	One ingredient, present at low concentration in the product, has been identified as having sensitising properties. May cause allergic reaction to the skin of sensitive individuals.
Repeated-dose toxicity	No information available.

Carcinogenicity/Mutagenicity/Reproductive toxicity

No ingredients have been identified with these hazards.

12. Ecological information

Ecotoxicological data have not been determined specifically for this product, but it is classified as toxic on the basis of the known hazards of the components.

Mobility	The product is water-based and expected to be mobile in the aquatic environment. The surfactant ingredient is expected to be immobile in soil and sediment. Contains some volatile ingredients that may migrate to air.
Persistence/degradability	The surfactant ingredient is stable to hydrolysis, but readily biodegradable in the environment, according to EU test methods and criteria. Other ingredients are known to be persistent in the environment.
Bioaccumulation	The surfactant ingredient is not expected to bioaccumulate. Other ingredients unknown.
Ecotoxicity	The emulsionyl quaternary surfactant ingredient, 1,2,3-chemhazane and lemonyane have been shown have been shown to be hazardous to aquatic organisms.

13. Disposal considerations

This product should not be disposed of via the drains or by landfill. Disposal must be in accordance with current national and local regulations. Chemical residues generally count as hazardous waste, and their disposal may be regulated in the EC member countries through corresponding laws and regulations. We recommend that you contact either the authorities or approved waste disposal companies who will advise you on how to dispose of hazardous waste.

General EU requirements are given in the Waste Framework Directive (75/442/EEC) and the Hazardous Waste Directive (91/689/EEC).

Packaging may contain residues of the product and should be treated accordingly.

This product is classified as dangerous goods for transport. Carriage of surplus or waste product and contaminated packaging must be in accordance with the provisions of the relevant transport regulations – see section 14 below.

14. Transport information

UN No.	1760
Proper Shipping Name	CORROSIVE LIQUID, N. O. S. (contains silicate salt)
Marine Pollutant	Yes, according to 2008 Edition criteria.
Class	8
Label(s)	8
Packing Group	III
IMDG Code Segregation Group	18 - Alkalis
ADR Tunnel Code	E

Data given for the product chemistry. Particular packaging options may require alteration or supplementation of the information.

15. Regulatory information

Classification and labelling according to EC Directives

Classification

Symbols and indications of danger

Irritant

Dangerous for the environment

Risk phrases

R36/38, irritating to eyes and skin.
R51/53, toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

S26, in case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S37, wear suitable gloves
S61, avoid release to the environment. Refer to special instructions/safety data sheet

Other phrases

Contains lemonyane. May produce an allergic reaction.

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

UK legislation

Control of Substances Hazardous to Health Regulations 2002.
Health and Safety at Work Act 1974 c 37.
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007 (SI 2007/1573)
Personal Protective Equipment Regulations 2002 (SI 2002/1144).
Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716) (CHIP4).

Guidance
COSHH Essentials: Easy steps to control chemicals; HSE Books 2003 (also available on the HSE web site).
Workplace Exposure Limits EH40/2005, as amended 2007.

16. Other information

Revisions: None (first EU SDS).

Risk phrase explanations: R10, flammable; R11, highly flammable; R21, harmful in contact with skin; R22, harmful if swallowed; R34, causes burns; R36, irritating to eyes; R37, irritating to respiratory system; R38, irritating to skin; R43, may cause sensitisation by skin contact; R50, very toxic to aquatic organisms; R51, toxic to aquatic organisms; R53, may cause long-term adverse effects in the aquatic environment; R65, harmful: may cause lung damage if swallowed; R67, vapours may cause drowsiness and dizziness.

Further information: The classification of the product has been assessed according to the calculation method given in 99/45/EC, and Regulation (EC) No 1272/2008 on *classification, labelling and packaging of substances and mixtures*, and amending Directive 67/548/EEC and Regulation (EC) No 1907/2006, on the basis of available information for the ingredients from supplier safety data sheets.

Restrictions recommended by supplier: For professional use only; not to be supplied to the general public.

Sources of key data
1. Annex VI of Regulation 1272/2008 on *Harmonised Classification and Labelling for Certain Hazardous Substances*.
2. Existing Chemical Substances Information System (ESIS) available at the European Chemical Bureau website: http://ecb.jrc.ec.europa.eu/esis/.
3. Classification and Labelling of Surfactants for Human Health Hazards According to the Dangerous Substances Directive. CESIO Recommendations for Anionic and Non-ionic surfactants. CESIO. January 2000.
4. CESIO Recommendation for the Classification and Labelling of Surfactants as 'Dangerous for the Environment. CESIO. April 2003.
5. Suppliers' safety data sheets.

This safety data sheet is provided to enable the employer to fulfil his duties to assess and provide information on risks in the workplace as required under the Health and Safety at Work Act, Control of Substances Hazardous to Health Regulations, and Dangerous Substances and Explosive Atmospheres Regulations.

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