Material Safety Data Sheet

SAFETY DATA SHEET WILLOWCHEM 61

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

| PRODUCT NAME | WILLOWCHEM 61 | |
|---------------------|--|--|
| APPLICATION | Cleaner | |
| SUPPLIER | WILLOWCHEM TECHNOLOGY LIMITED | |
| | UNIT 6 & 7 HIRWAUN INDUSTRIAL ESTATE | |
| | HIRWAUN | |
| | MID GLAMORGAN | |
| | SOUTH WALES | |
| | CF44 9YE | |
| | Telephone Number: 01685 812211 | |
| EMERGENCY TELEPHONE | 24 hour Emergency Contact Number: 01685 812211 | |
| | e-mail address of Competent Person: colinowen@willowchem.co.uk | |

2 HAZARDS IDENTIFICATION

Irritating to skin. Risk of serious damage to eyes.

CLASSIFICATION Xi;R38, R41.

3 COMPOSITION/INFORMATION ON INGREDIENTS

| Name | EC No. | CAS-No. | Content | Classification |
|--------------------------|-----------|-----------|---------|-----------------------|
| BUTYL GLYCOL | 203-905-0 | 111-76-2 | <1% | Xn;R20/21/22. Xi;R37. |
| CHROMIC ACID | 231-801-5 | 773-89-45 | <1% | - |
| FATTY ALCOHOL ETHOXYLATE | | | 1-5% | Xn;R22. Xi;R38,R41. |
| PHOSPHORIC ACID% | 231-633-2 | 7664-38-2 | 10-20% | C;R34 |
| THICKENING AGENT | | | 1-5% | Xi;R38. |

The Full Text for all R-Phrases are Displayed in Section 16

4 FIRST-AID MEASURES

INHALATION

Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.

INGESTION

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. After the liquid has been swallowed, try to induce vomiting by having affected person touch back of his throat with his finger. Get medical attention.

SKIN CONTACT

Remove affected person from source of contamination. Promptly flush contaminated skin with water. Promptly remove clothing if soaked through and flush the skin with water

EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use fire-extinguishing media appropriate for surrounding materials.

SPECIAL FIRE FIGHTING PROCEDURES

Keep run-off water out of sewers and water sources. Dike for water control. Cool containers exposed to flames with water until well after the fire is out. Move container from fire area if it can be done without risk. If risk of water pollution occurs, notify appropriate authorities.

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UNUSUAL FIRE & EXPLOSION HAZARDS

May develop highly toxic or corrosive fumes if heated. May form toxic or explosive vapours in presence of certain metals. May ignite other combustible materials.

SPECIFIC HAZARDS

Fire or high temperatures create: Corrosive gases/vapours/fumes of Phosphorus oxides POx

PROTECTIVE MEASURES IN FIRE

Wear self-contained breathing apparatus and protective clothing (including fire-fighting helmet, coat, trousers, boots and gloves).

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

In case of a major spillage, full protective equipment including a respirator or self-contained breathing apparatus must be worn.

ENVIRONMENTAL PRECAUTIONS

Do not allow to enter sewers or water courses. If spillage does enter sewers or water courses, immediately inform appropriate authorities.

SPILL CLEAN UP METHODS

Stop leak if possible without risk. DO NOT touch spilled material! Absorb in vermiculite, dry sand or earth and place into containers. Flush area with water.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Wear ful protective clothing for prolonged exposure and/or high concentrations.

STORAGE PRECAUTIONS

Store in tightly closed original container in a dry, cool and well-ventilated place.

STORAGE CLASS

Corrosive storage. Chemical storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

| Name | Std | LT - ppm | LT - mg/m3 | ST - ppm | ST - mg/m3 |
|------------------|-----|--------------|------------|----------|------------|
| BUTYL GLYCOL | WEL | 25 | | ppm(Sk) | |
| CHROMIC ACID | WEL | 0.05 No std. | | mg/m3 | |
| PHOSPHORIC ACID% | WEL | | 1 mg/m3 | | 2 mg/m3 |

ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

HAND PROTECTION

Use protective gloves made of: Rubber (natural, latex). Neoprene. Nitrile. Polyethylene. Polyvinyl chloride (PVC).

EYE PROTECTION

Wear splash-proof eye goggles to prevent any possibility of eye contact. Contact lenses should not be worn when working with this chemical! OTHER PROTECTION

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash, quick drench. Wear appropriate clothing to prevent any possibility of skin contact.

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Change work clothing daily if contamination is reasonably probable. Promptly remove any clothing that becomes wet or contaminated. Contaminated clothing to be placed in closed container until disposal or decontamination. Warn cleaning personnel of chemical's hazardous properties.

| 9 PHYSICAL AND CHEMICAL | PROPERTIES | | |
|-------------------------|-------------------------------------|----------------------------|-----|
| APPEARANCE | Liquid | | |
| COLOUR | Green | | |
| ODOUR | Odourless | | |
| SOLUBILITY | Soluble in water Soluble in Alcohol | | |
| RELATIVE DENSITY | 1.15 @ 20°C | pH-VALUE, DILUTED SOLUTION | 1-2 |

10 STABILITY AND REACTIVITY

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STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Gives off hydrogen by reaction with metals.

MATERIALS TO AVOID

Bases, alkalies (inorganic). Massive, solid metal. Powdered metal. Strong oxidising substances. Strong reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Toxic gases/vapours/fumes of: Oxides of: Phosphorus. Phosphoric acid mist.

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 1530 mg/kg (oral rat)

TOXIC DOSE 2 - LD 50 2740 mg/kg (oral-rbt)

HEALTH WARNINGS

Gas or vapour is harmful on prolonged exposure or in high concentration. This chemical may cause skin/eye irritation and burns (corrosive). Irritant of eyes and mucous membranes.

Repeated exposure may cause chronic eye irritation. May cause chemical eye burns. Acute eczematous dermatitis, contact type erythema, oedema, papules,

vesicles, bullae, crusts, desquamation. Swallowing concentrated chemical may cause severe internal injury.

ROUTE OF ENTRY

Inhalation. Ingestion. Skin and/or eye contact.

TARGET ORGANS

Eyes. Gastro-intestinal tract. Respiratory system, lungs. Skin.

MEDICAL SYMPTOMS

Extreme irritation of eyes and mucous membranes, including burning and tearing. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. Severe skin irritation. Nausea, vomiting.

MEDICAL CONSIDERATIONS

Skin disorders and allergies.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous to aquatic life in high concentrations. Low concentrations may act as a nutrient or precipitate heavy metals.

LC 50, 96 Hrs, FISH mg/l 100-1000

MOBILITY

The product is soluble in water.

DEGRADABILITY

Degradable; will enter natural phosphorus cycle. Chromium VI in water will eventually be reduced to chromium III by organic matter in the water. Most chromium released will ultimately be deposited in the sediment.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Absorb in vermiculite or dry sand, dispose in licensed hazardous waste. Confirm disposal procedures with environmental engineer and local regulations. Do not allow runoff to sewer, waterway or ground. Contact specialist disposal companies.

14 TRANSPORT INFORMATION

ADR CLASS

Not classified for transportation

15 REGULATORY INFORMATION

LABELLING



R38

R41

RISK PHRASES

Irritating to skin. Risk of serious damage to eyes. REVISION DATE: 110/04/08

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| SAFETY PHRASES | | |
|----------------|--------|---|
| | S24/25 | Avoid contact with skin and eyes. |
| | S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| | S37/39 | Wear suitable gloves and eye/face protection. |

16 OTHER INFORMATION

| REVISION DATE | 110/04/08 | |
|------------------------------|--|--|
| REV. NO./REPL. SDS GENERATED | 2 | |
| SDS NO. | 2008/10858 | |
| RISK PHRASES IN FULL | | |
| R20/21/22 Harmfu | ul by inhalation, in contact with skin and if swallowed. | |
| R22 Harmfu | ul if swallowed. | |
| R25 Toxic i | f swallowed. | |
| R34 Causes | Causes burns. | |
| R35 Causes | Causes severe burns. | |
| R37 Irritatin | Irritating to respiratory system. | |
| R38 Irritatin | ng to skin. | |
| R41 Risk of | f serious damage to eyes. | |
| R43 May ca | ause sensitisation by skin contact. | |
| R49 May ca | ause cancer by inhalation. | |
| R50/53 Very to | oxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. | |
| R8 Contac | ct with combustible material may cause fire. | |
| | | |

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such