

X-CHANGE - PRODUCT SAFETY DATA SHEET

1. Identification of the Substance/Preparation and Company

Product name: X-CHANGE

Supplier: De Sangosse Ltd, Swaffham Bulbeck, Cambridge CB5 OLU,UK

Telephone number: 01223 811215 (outside UK + 44 1223 811215)

Fax number: 01223 810020 (outside UK + 44 1223 810020)

Emergency Telephone Number: Office hours 01223 811215, After Office hours: 01638 577581 or 01485 544230

2. Composition/Information on Ingredients

Chemical Name	Concentration	CAS Number	EC Number	R Phrases	Symbols
Ammonium sulphate	2-30%	7783- 20- 2	231- 984- 1	R36/ 37/ 38	Xi
Citric acid	5-35%	77- 92- 9	201- 069- 1	R36	Xi
Diethylene glycol	5-35%	111- 46- 6	203- 872- 2	R22	Xn

R22: Harmful if swallowed

R36/37/38: Irritating to eyes, respiratory system and skin

3. Hazards Identification

Contact with eyes: Causes redness and irritation

Contact with skin: Causes redness and irritation, May cause burning sensation

Inhalation: Harmful by inhalation (R20)

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R52/R53)

4. First Aid Measures

Contact with skin - Remove contaminated clothing immediately and drench affected skin with plenty of water. Then wash with soap and water - Seek medical advice and show the product label where possible - Contaminated clothing should be laundered before reuse.

Contact with eyes - If substance has got into eyes, immediately wash out with plenty of water for at least 15 minutes - Seek medical advice and show the product label where possible.

Ingestion - Rinse mouth with water (do not swallow) - Do not induce vomiting - Seek medical advice and show the product label where possible.

Inhalation - Remove patient to fresh air - Keep warm and at rest - Seek medical advice and show the product label where possible.

5. Fire-Fighting Measures

Flash point >93 deg C - Not combustible. In case of fire use extinguishing media appropriate to surrounding conditions - Wear Chemical Protection Suit and Breathing Apparatus - Portable containers should be moved if possible and without risk - Prevent run off water from entering drains if possible.

6. Accidental Release Measures

Immediate Action: Use appropriate containment to avoid environmental contamination (S57)

Clean Up Actions: Wear suitable protective clothing, eye/face protection and gloves (see Section 8) - In case of insufficient ventilation, wear respiratory equipment (S38) - Absorb small spillages in inert material and shovel up, place in plastic drums for safe disposal (see Section 13) - Dyke large spillages to prevent entry to sewer or waterway. Transfer liquid to a holding container.

Special Precautions: If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

7. Handling and Storage

Handling: Use only in well ventilated areas (S51) - Do not breathe vapours - Avoid contact with skin and eyes - Wear suitable personal protection equipment as per Section 8 of this safety data sheet. - Wash thoroughly after use - No special precautions are required for this product if unopened packs are handled in store with care.

Storage: Store in a secure, dry, well ventilated facility - Protect from frost - Keep out of reach of children (S2) - Keep away from animal feeding stuffs

8. Exposure Controls/Personal Protection

Exposure Limits: Diethylene glycol - OES / LTEL 23 ppm 101 mg/ m³

Exposure controls - Engineering controls of operator exposure must be used where reasonably practicable in addition to the personal protective equipment described below - The undiluted product must not be used in a confined space without good ventilation - In case of insufficient ventilation, wear suitable respiratory equipment (S38).

Occupational exposure controls - When handling the concentrated product, wear suitable gloves and face protection (faceshield). - Industrial heavy duty rubber gloves are recommended - The fit and type of the gloves must be comfortable to the operator and must not hamper the handling operations. - The gloves should be in good condition and washed inside and outside after use. - Ensure that the visor of the faceshield is down before opening the pack. - Keep the visor of the faceshield down whilst handling the product (especially during measuring and pouring). - Do not raise the visor of the faceshield with contaminated gloves.

9. Physical and Chemical Properties

Odour: smells like vinegar

Appearance: Clear liquid

pH 3 at 100 % concentration

Water solubility: Completely soluble

Specific gravity: 1.104 g/ cm³

Flash point >93 deg C

10. Stability and Reactivity

Stable - Avoid contact with strong alkalis - Decomposition products may include nitrogen and carbon oxides

11. Toxicological Information

LD50 (oral, rat) >3870 mg/ kg

LD50 (skin, rabbit) >2000 mg/ kg

LC50 (inhalation, rat) >2.88 mg/ l/4h

Irritation to skin (rabbit) : mild or slight irritation at 72 hours

Irritation to eyes (rabbit) : corneal involvement or irritation clearing in 7 days or less

Sensitisation (guinea pig) : Not a sensitiser

12. Ecological Information

Ecotoxicology

LC50 (zebra fish) 70.7 mg/l (96 hr)

EC50 (daphnia) >100 mg/l (24 hr)

EC50 (algae) 46.3 mg/ l (96 hr)

13. Disposal Considerations

Dispose of unwanted product at a licensed waste disposal site. - Packaging should be disposed of at an approved landfill site or by incineration. - Triple rinse containers prior to disposal. Do not re-use containers.

14. Transport Information

Not classified as hazardous for transport.

15. Regulatory Information



Risk Phrases

Harmful by inhalation (R20)

Irritating to eyes and skin (R36/38)

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R52/R53)

Safety Phrases

Keep out of reach of children (S2)

Keep away from food, drink and animal feeding stuffs (S13)

Do not breathe spray/mists (S23)

Avoid contact with skin and eyes (S24/25)

Do not empty into drains; dispose of this material and its container in a safe way (S29/35)

Wear suitable protective clothing, eye/face protection and gloves (S36/37/39)

In case of insufficient ventilation, wear suitable respiratory equipment (S38)

Use appropriate containment to avoid environmental contamination (S57)

16. Other Information

This Safety Data Sheet is provided in compliance with: The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP III). This Safety Data Sheet does not constitute a workplace risk assessment.

Revised Date: May 2005