



MATERIAL SAFETY DATA SHEET

Ingestion : doctor.
: Do not induce vomiting. Rinse the mouth and give water. Do not give milk. Never give anything by mouth to an unconscious person. Consult a doctor immediately.

5 FIRE FIGHTING MEASURES

Extinguishing media
Suitable : CO2, foam, water fog or dry chemical.
Not suitable : None known
Special exposure hazards : None known
Hazardous thermal (de)composition products : Carbon monoxide may be evolved if incomplete combustion occurs.
Special protective equipment for fire-fighters : Use adequate respiratory equipment in case of insufficient ventilation.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Keep away from sources of ignition. See also section 8.
Environmental precautions : Avoid release of non diluted product into sewers and surface water and/or ground water. Large scale discharge causing a very low pH may impair the biological system in sewage plants. Inform the official bodies if necessary.
Methods for cleaning up : Collect spilled material in containers. Dispose at an authorised waste collection point. Carefully neutralise residues with soda. Collect neutralized product in containers and dispose as chemical waste. Wash away remainder with plenty of water and soap.

7 HANDLING AND STORAGE

Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Keep away from sources of ignition. No smoking. Avoid contact with eyes and skin. Do not breathe vapours.
Storage : Keep frost-free, in a cool, dry and well-ventilated place (< 35 °C) separated from oxidizing substances.
Recommended packaging : Keep only in the original container.
Use : Use only as directed.

8 EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering measures : Use only in well-ventilated areas. Comply with standard precautionary measures for working with chemicals.
Hygienic measures : Do not eat, drink or smoke during use.
Occupational exposure limits : Occupational exposure limits have not been established for this product.

Workplace exposure limits (mg/m³):

Chemical name		EC	UK		
2-Butoxyethanol	TWA 8 hour	98	123		
	STEL 15 min	246	-		
Oxalic acid	TWA 8 hour	1	-		
	STEL 15 min	2	-		

Personal protective equipment:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.

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- Body protection : Use of specific protective industrial clothing is not required for momentary use. See also under additional information.
- Respiratory protection : Take care of sufficient ventilation. Wear a gas filter type A (brown), class I or higher on e.g. a facemask in accordance with EN 140, in case of large scale exposure
- Hand protection : Wear appropriate safety gloves. See also under additional information.
- Eye protection : Wear appropriate safety glasses with side shields, in accordance with EN 166.

Additional information:

- Protective clothing : Wear neoprene protective clothing, overalls or suit, and similar boots in accordance with EN 365/367 resp. 345, in case of frequent or prolonged use and in case of large scale exposure.
- Safety gloves : Wear neoprene gloves. Indication of permeation breakthrough time: not permeable (2-butoxyethanol, oxalic acid)

9 PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : Colourless
- Odour : Characteristic
- pH : ± 1
- Solubility in water : Soluble
- in fat : Not known
- Partition coefficient (n-octanol/water) : Not known
- Flash point : $\pm 68^{\circ}\text{C}$ (PMcc)
- Auto ignition temperature : Not applicable
- Boiling point/ boiling range : $\pm 100^{\circ}\text{C}$
- Melting point/ melting range : $\pm 0^{\circ}\text{C}$
- Explosive properties : Not applicable
- Oxidizing properties : Not applicable
- Decomposition temperature : Not applicable
- Viscosity (25°C) : Not known
- Vapour pressure (20°C) : Not known
- Relative density (20°C) : $\pm 1.0 \text{ kg/l}$
- Evaporation rate : < 1 (n-butyl acetate = 1)

10 STABILITY AND REACTIVITY

- Stability : Stable under normal conditions.
- Conditions to avoid : See section 7.
- Materials to avoid : Avoid contact with alkalines.
- Hazardous decomposition products : Not known.

11 TOXICOLOGICAL INFORMATION

No toxicological research has been carried out on this product.

- Inhalation : Irritation of respiratory airways possible when vapour concentrations exceed threshold limits.
- Skin contact : Irritating to skin. Prolonged contact may dry out and degrease the skin.
- Eye contact : Irritating to eyes.
- Ingestion : Ingestion may cause vomiting, nausea and diarrhoea.

Toxicological information:

Chemical name	Toxicity (mg/kg or mg/m3)	Irritation	Sensitization
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2-Butoxyethanol	LD ₅₀ : 470 (oral)	Irritating (rabbit, eye) Irritating (dermal, guinea pig)	Not sensitising
Oxalic acid	LD ₅₀ : 7500 (rat, oral)	Strong irritant (rabbit, eyes) Slight irritant (rabbit, skin)	Not sensitising

12 ECOLOGICAL INFORMATION

No ecotoxicological research has been carried out on this product.

Ecotoxicity : No ecotoxicological information available.

Mobility : Spilled product can penetrate into the ground and get into the ground water and surface water.

Persistence – degradability : Data on the biodegradation of this product are not available.

Bio accumulative potential : No specific information known.

13 DISPOSAL CONSIDERATIONS

Product residues : Dispose empty pack with regular household waste. Treat product residues and non-empty pack as hazardous waste. Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.

Comment : Attention is drawn to the possible existence of mandatory and regulatory communal, national or local requirements governing disposal of waste.

14 TRANSPORT

UN number : None

Transport name : Not regulated.

Land - Road/Railway
ADR/RID class : This product is not classified according to ADR/RID.

Water
IMDG class : This product is not classified according to IMDG.
Marine pollutant : No

Air
IATA class : This product is not classified according to IATA.

15 REGULATORY INFORMATION

Community regulations : EC classification (67/548/EEC - 99/45/EC) and other regulations

Hazard symbols : Xi, irritant



R- and S-phrases : R36/38 Irritating to eyes and skin.
: S2 Keep out of reach of children.
: S46 If swallowed, seek medical advice immediately and show this container or label.



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Other information : Not applicable.

16 OTHER INFORMATION

The information in this safety data sheet is compiled in compliance with Directive 2001/58/EC dated 27 July 2001 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (*).

Full text of R-phrases mentioned in section 2:

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R36/38	Irritating to eyes and skin.

History

Date of first issue : 16-09-2005