MATERIAL SAFETY DATA SHEET DIETHYLENE GLYCOL MSDS

1: Chemical Product and Company Identification

Product Name:	Diethylene glycol
Catalogue Codes:	SLD3151
CAS#:	111-46-6
RTECS:	ID5950000
TSCA:	TSCA 8(b) inventory: Diethylene glycol
CI#:	Not applicable.
Synonym:	Carbitol
Chemical Name:	2,2'-Oxydiethanol
Chemical Formula:	C4H10O3

2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Diethylene glycol	111-46-6	100

Toxicological Data on Ingredients: Diethylene glycol: ORAL (LD50): Acute: 12565 mg/kg [Hamster.]. DERMAL (LD50):
Acute: 11890 mg/kg [Hamster.].

3: Hazards Identification

Potential Acute Health Effects: Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.
Potential Chronic Health Effects:
Hazardous in case of skin contact (irritant, permeator), of ingestion. Slightly hazardous in case of eye contact (irritant).
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to blood, kidneys, the nervous system, liver. Repeated or prolonged exposure to the substance can produce target organs damage.

4: First Aid Measures

Eye Contact: Check for and remove any contact lenses. Immediately flush eyes with running
Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapour/spray. Wear suitable protective clothing in case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes
Storage:
Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

8: Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid
inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

9: Physical and Chemical Properties

Physical state and appearance:	Liquid. (Clear viscous liquid.)
odour:	Odourless.
Taste:	Sweet.
Molecular Weight:	106.12 g/mole
Colour:	Colourless.
pH (1% soln/water):	7 [Neutral.]
Boiling Point:	245.8°C (474.4°F)
Melting Point:	-8°C (17.6°F)
Critical Temperature:	Not available.
Specific Gravity:	1.12 (Water = 1)
Vapor Pressure:	0.01 mm of Hg (@ 20°C)
Vapor Density:	3.66 (Air = 1)
Volatility:	Not available.
odour Threshold:	Not available.
Water/Oil Dist. Coeff.:	Not available.
Iconicity (in Water):	Not available.
Dispersion Properties:	See solubility in water, methanol, diethyl ether.
Solubility:	Easily soluble in cold water, hot water, methanol, diethyl ether.

10: Stability and Reactivity Data

Stability:	The product is stable.
Instability Temperature:	Not available.
Conditions of Instability:	Not available.
Incompatibility with various substances:	Slightly reactive to reactive with oxidizing agents.
Corrosivity:	Not considered to be corrosive for metals and glass.
Special Remarks on Reactivity:	Hygroscopic; keep container tightly closed.
Special Remarks on Corrosivity:	Not available.
Polymerization:	No.

11: Toxicological Information

Routes of Entry: Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

Acute oral toxicity (LD50): 12565 mg/kg [Hamster.]. Acute dermal toxicity (LD50): 11890 mg/kg [Hamster.].
Chronic Effects on Humans: The substance is toxic to blood, kidneys, the nervous system, liver.
Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Experimentally tumorigenic by inhalation. Exposure can cause nausea, headache and vomiting.

12: Ecological Information

Ecotoxicity: Not available.
BOD5 and COD: Not available.
Products of Biodegradation: Possibly hazardous short-term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are more toxic.
Special Remarks on the Products of Biodegradation: Not available.

13: Disposal Considerations

Waste Disposal:

14: Transport Information

DOT Classification: Not a DOT controlled material (United States).
Identification: Not applicable.
Special Provisions for Transport: Not applicable.

15: Other Regulatory Information

Protective Equipment:
Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

16: Other Information

References: Not Available
Other Special Considerations: Not available.

EXCLUSION OF LIABILITY

All information and instructions provided in this Material Safety Data Sheet in respect of the substance is given solely in terms of the provisions of the Occupational Health and Safety Act No 85 of 1993
and Regulations ("the Act"), is based on scientific and technical knowledge as at the date indicated on this MS Material Safety Data Sheet and is presented in good faith to be correct.
The information and instructions provided in this MSDS apply only to the substance in its present form and not to any formulation or mix, in which event it is the sole responsibility of the user of the substance as formulated and/or mixed to investigate and establish any danger which may arise out of its use, wherever such user may be situated.

It is the sole responsibility of the person in receipt of this Material Safety Data Sheet wherever such recipient may be situated, to ensure that the information provided is communicated to and understood by any person who may come in contact with the substance in any place and in any manner whatsoever. If such recipient produces formulations or mixes using the substance, then it is such recipient's sole responsibility to comply with the provisions of the Act in respect of the provision of the necessary Material Safety Data Sheet, or to comply with any other applicable legislation.