

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product Name: DIETHYLENE GLYCOL
Datasheet Number: DIETHYLENE GLYCOL
Chemical Name: 2,2' - Oxydiethanol
Synonyms: DEG
REACH Registration No.: 01-2119457857-21-XXXX
CAS No.: 111-46-6
EC No.: 203-872-2

Relevant identified uses of the substance or mixture and uses advised against:

Industrial Applications, Solvent, Cleaning Agents, Biocidal agents, Lubricants, metal working fluids, Hydraulic fluids, intermediate, de-icing agents, laboratories, polymer production.

Company name: Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Acute Tox. 4
STOT SE 2

Label elements:



Signal Word: Warning
Hazard phrases: H302- Harmful if swallowed.
H372- Causes damage to the liver through repeated or prolonged exposure.

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Precautionary Phrases:	P260- Do not breathe dust/fume/gas/mist/vapours/spray. P264- Wash thoroughly after handling. P270- Do not eat, drink or smoke when using this product. P301+P312- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330- Rinse mouth. P501- Dispose of contents/container as hazardous waste
Risk Phrases:	Harmful if swallowed.
Safety Phrases:	Keep out of reach of children, if swallowed seek medical advice immediately and show this container or label.
Other hazards:	Mildly irritating to eyes

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:	2,2' - Oxydiethanol; Diethylene Glycol
Concentration:	>98%
CAS Number:	111-46-6
EC Number:	203-872-2
R/H Phrases:	H302, R22
Symbols:	GHS07, Xn

4. FIRST AID MEASURES

Description of first aid measures:

NOTE TO PHYSICIANS:	Treat by observation and supportive measures as indicated by the patient's condition.
IF ON SKIN (or hair):	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED:	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If swallowed, do not induce vomiting:	Seek medical advice immediately and show this container or label.
If substance has got into eyes:	Immediately wash out with plenty of water for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed:

Can cause damage to the liver - Harmful if swallowed

Indication of any immediate medical attention and special treatment needed:

5. FIRE-FIGHTING MEASURES

Extinguishing media:	In case of fire use water spray or fog, alcohol resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media:	High Volume Water Jet.

Special hazards arising from the substance or mixture: Material is combustible.

Advice for firefighters:	Wear Breathing Apparatus. Wear full protective clothing including chemical protection suit. Use water spray to keep fire exposed containers cool and disperse vapours.
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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Wear protective clothing as per section 8.

Environmental Precautions: Do not allow to enter public sewers and watercourses.

Methods and material for containment and cleaning up: Absorb spillage in earth or sand.
Collect as much as possible in clean container for reuse or disposal.
Wash thoroughly after dealing with spillage.
Dispose of the collected material according to regulations.

Reference to other sections: See Section 7 for information on safe handling.
See Section 8 for information on personal protective equipment.

7. HANDLING AND STORAGE

Precautions for safe handling: The usual precautions for handling chemicals should be observed.
Equipment should be earthed.
Ensure adequate ventilation.
Keep away from heat and sources of ignition.

Conditions for safe storage, including any incompatibilities:
Keep away from oxidising substances.
Keep away from alkalis (strong bases).
Keep away from acid.

Specific end use(s): See Section 1.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters: WEL (long term) 10 ppm
WEL (short term) 23 ppm
DNEL (dermal) 106 mg/kg
DNEL (inhalational) 60 mg/m³
Note: DNEL values are for Workers only not consumers
PNEC 1 mg/l - PNEC 20.9 mg/kg
Note: PNEC values are for the marine environment

Exposure controls: Engineering controls should be provided which maintain airborne concentrations below the relevant guidelines. Appropriate Respiratory Protection should be worn for short periods if no extraction available.
Protective gloves, safety glasses and appropriate skin protection should be worn when handling.
Use explosion-proof ventilating and lighting equipment.

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Occupational exposure controls: Wear suitable protective clothing.
Wear goggles giving complete eye protection.
Wear plastic gloves specified as compatible by the manufacturer.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Odour:	Odourless
Appearance:	Clear Liquid
pH:	5 to 8 at 100 % concentration
Boiling point:	245°C
Vapour Pressure:	0.008 hPa 20°C
Vapour density (air = 1):	3.7
Melting Point:	minus 6.5°C
Solubility:	Completely soluble in water
Relative Density:	1.18
Lower flammability limit:	
Upper flammability limit:	
Flash point:	138 °C (CC) at 100 per cent by volume
Auto-ignition point:	229 °C at 760 mm Hg
Log Pow:	-1.98
Viscosity:	30 mPa.s at 20 °C
Other information:	

10. STABILITY AND REACTIVITY

Reactivity: Stable under normal temperature conditions and recommended use.

Chemical stability: Stable at normal temperature conditions and recommended use. – Hygroscopic.

Possibility of hazardous reactions: None under normal processing - Vapours may ignite.

Conditions to avoid: Avoid contact with oxidising substances.
Avoid contact with strong acids.
Avoid contact with alkalis (strong bases).

Incompatible materials: Incompatible with strong oxidizing substances.
Incompatible with strong acids.
Incompatible with alkalis (strong bases).

Hazardous Decomposition Products: Decomposition products may include carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

LD50 (oral): 1120 mg/kg

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Inhalation:	No information available.
Contact with skin:	Not hazardous.
Contact with eyes:	May cause irritation.
Ingestion:	Harmful.
Carcinogenicity:	No evidence of carcinogenic effects.
Teratogenicity:	No evidence of reproductive effects.
Mutagenicity:	No evidence of mutagenic effects.
	No evidence of reproductive effects.

12. ECOLOGICAL INFORMATION

Toxicity: LC50 (fish) >1000 mg/l (96 hr)
EC50 (daphnia) >10000 mg/l (24 hr)
On available data, substance is not harmful to aquatic life.

Persistence and degradability: Readily biodegradable.

Bioaccumulation Potential: Bioaccumulation is insignificant.

Mobility in soil: Completely soluble in water.

Results of PBT and vPvB assessment: Not a PBT according to REACH Annex XIII.

Other Adverse Effects: On available data, substance is not harmful to the environment.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods: Incineration by an approved method could be considered.
To be disposed of as hazardous waste.

14. TRANSPORT INFORMATION

UN Number:

UN Proper Shipping Name:

Transport hazard class (es):

Packing group:

Environmental hazards:

Special precautions for user:

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:

Emergency Action Code:

Proper Shipping Name:

EAC:

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Road/Rail (ADR/RID):

Proper Shipping Name:

ADR UN No.:

ADR Hazard Class:

ADR Item No.:

ADR/RID No.:

Tram card:

Tunnel Code:

Sea (IMDG):

Proper Shipping Name:

IMDG UN No.:

IMDG Hazard Class:

IMDG Page No.:

IMDG Pack Group:

IMDG EmS:

IMDG MFAg:

Air (ICAO/IATA)

Proper Shipping Name:

ICAO UN No.:

ICAO Hazard Class:

ICAO Packing Group:

DOT / CFR (US Department of Transportation):

DOT Proper Shipping Name:

Hazardous Material:

Hazard Class:

Identification Number:

Product RQ (lbs):

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

Not hazardous according to current ADR Regulations.

INVENTORIES:

EINECS, TSCA, AICS, DSL, ENCS, KECI, PICCS, IECSC - All conformed to.

Note:

The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

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16. OTHER INFORMATION

Legal disclaimer:

The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.