According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Diethylene Glycol Product code : U1237, U1239

Registration number EU : 01-2119457857-21-0001, 01-2119457857-21-0003

Synonyms : 2,2' Dihydroxy diethyl ether, bis (2-hydroxyethyl) ether, DEG,

Diglycol, Digol, Ethylene diglycol

CAS-No. : 111-46-6

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

Use of the Sub- : Chemical intermediate.

stance/Mixture Please refer to section 16 and/or the annexes for the regis-

tered uses under REACH.

Uses advised against : This product must not be used in applications other than the

above without first seeking the advice of the supplier., Do not use in the manufacture or preparation of foods or pharmaceuticals., Keep out of reach of children and pets., Do not use in theatrical fogs or other artificial smoke generator applications.,

Do not use in aircraft deicing applications.

This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the sup-

plier.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier : Shell Chemicals Europe B.V.

PO Box 2334

3000 CH Rotterdam

Netherlands

Telephone : +31 (0)10 441 5137 / +31 (0)10 441 5191 Telefax : +31 (0)20 716 8316 / +31 (0)20 713 9230

Contact for Safety Data

Sheet

: sccmsds@shell.com

1.4 Emergency telephone number

+44 (0) 1235 239 670 (24/7)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4, Oral H302: Harmful if swallowed.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms

Signal word : Warning

Hazard statements : PHYSICAL HAZARDS:

Not classified as a physical hazard according to CLP

criteria.

HEALTH HAZARDS: H302 Harmful if swallowed.

ENVIRONMENTAL HAZARDS:

Not classified as environmental hazard according to

CLP criteria.

Precautionary statements : Prevention:

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER/

doctor if you feel unwell. P330 Rinse mouth.

Storage:

No precautionary phrases.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

2.3 Other hazards

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Slightly irritating to the skin.

Slightly irritating to respiratory system.

Slightly irritating to the eye.

Vapours may be irritating to the eye.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

SECTION 3: Composition/information on ingredients

3.1 Substances

Components

| Chemical name | CAS-No. EC-No. | Concentration (% w/w) |
|-------------------|-----------------------|-----------------------|
| Diethylene glycol | 111-46-6 203-872-2 | 95 - 100 |

Further information

Contains:

| Chemical name | Identification number | Classification | Concentration (% w/w) |
|---------------|-------------------------|-------------------------------------|-----------------------|
| Ethanediol | 107-21-1, 203-473- 3 | Acute Tox.4; H302 STOT RE2; H373 | <= 0,15 |

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Not expected to be a health hazard when used under normal

conditions.

Protection of first-aiders : When administering first aid, ensure that you are wearing the

appropriate personal protective equipment according to the

incident, injury and surroundings.

If inhaled : No treatment necessary under normal conditions of use. If

symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with wa-

ter and follow by washing with soap if available.

If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.

Remove contact lenses, if present and easy to do. Continue

rinsing.

If persistent irritation occurs, obtain medical attention.

If swallowed : If swallowed, do not induce vomiting: transport to nearest

medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Rinse mouth.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Not considered to be an inhalation hazard under normal con-

ditions of use.

Possible respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, cough-

ing, and/or difficulty breathing.

No specific hazards under normal use conditions.

Skin irritation signs and symptoms may include a burning sen-

sation, redness, or swelling.

Eye irritation signs and symptoms may include a burning sen-

sation, redness, swelling, and/or blurred vision.

Ingestion may result in nausea, vomiting and/or diarrhoea. High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death. Kidney toxicity may be recognized by blood in the urine or increased or decreased urine flow. Other signs and symptoms can include nausea, vomiting, abdominal cramps, diarrhoea, lumbar pain shortly after ingestion, and possibly narcosis and

death.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : IMMEDIATE TREATMENT IS EXTREMELY IMPORTANT!

Call a doctor or poison control center for guidance.

Treat symptomatically.

May cause significant renal, respiratory, and CNS toxicity.

May cause significant acidosis.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam, water spray or fog. Dry chemical pow-

der, carbon dioxide, sand or earth may be used for small fires

only.

Unsuitable extinguishing

media

Do not use water in a jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

Material will not burn unless preheated.

Carbon monoxide may be evolved if incomplete combustion

occurs.

Containers exposed to intense heat from fires should be

cooled with large quantities of water.

5.3 Advice for firefighters

Special protective equipment :

for firefighters

Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to

relevant Standards (e.g. Europe: EN469).

Specific extinguishing meth-

ods

Standard procedure for chemical fires.

Further information : Evacuate the area of all non-essential personnel.

Keep adjacent containers cool by spraying with water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Observe all relevant local and international regulations. Notify authorities if any exposure to the general public or the

environment occurs or is likely to occur.

Local authorities should be advised if significant spillages

cannot be contained.

6.1.1 For non emergency personnel: Avoid contact with skin, eyes and clothing.

6.1.2 For emergency responders:

Avoid contact with skin, eyes and clothing.

6.2 Environmental precautions

Environmental precautions : Prevent from spreading or entering into drains, ditches or riv-

ers by using sand, earth, or other appropriate barriers.

Use appropriate containment to avoid environmental contami-

nation.

Ventilate contaminated area thoroughly.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain run-off from residue flush and dispose of properly.

Soak up residue with an absorbent such as clay, sand or other

suitable material.

For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove

contaminated soil and dispose of safely.

For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

6.4 Reference to other sections

For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet., For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : Avoid breathing of or direct contact with material. Only use in

well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see

Section 8 of this Safety Data Sheet.

Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this

material.

Ensure that all local regulations regarding handling and stor-

age facilities are followed.

Advice on safe handling : Use local exhaust extraction over processing area.

Handle and open container with care in a well-ventilated area.

Do not empty into drains.

When handling product in drums, safety footwear should be worn and proper handling equipment should be used.

Handling Temperature:

Ambient.

Product Transfer : Keep containers closed when not in use. Do not pressurize

drum containers to empty.

Hygiene measures : Wash hands before eating, drinking, smoking and using the

toilet. Launder contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Refer to section 15 for any additional specific legislation cov-

ering the packaging and storage of this product.

Further information on stor-

age stability

Tanks must be clean, dry and rust-free.

Keep container tightly closed.

Must be stored in a diked (bunded) well- ventilated area, away from sunlight, ignition sources and other sources of heat. Cleaning, inspection and maintenance of storage tanks is a specialist operation, which requires the implementation of

strict procedures and precautions.

Drums should be stacked to a maximum of 3 high.

Storage Temperature:

Ambient.

Packaging material : Suitable material: Stainless steel., Mild steel., Carbon steel

Unsuitable material: Data not available

Container Advice : Containers, even those that have been emptied, can contain

explosive vapours. Do not cut, drill, grind, weld or perform

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

similar operations on or near containers.

7.3 Specific end use(s)

Specific use(s) : Please refer to section 16 and/or the annexes for the regis-

tered uses under REACH.

Ensure that all local regulations regarding handling and stor-

age facilities are followed.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|-------------------|---|-------------------------------|--------------------|------------|
| Diethylene glycol | 111-46-6 | NDS (inhalable fraction) | 10 mg/m3 | PL OEL |
| Ethanediol | 107-21-1 | NDS | 15 mg/m3 | PL OEL |
| | Further inform | nation: Skin | | |
| Ethanediol | | NDSch | 50 mg/m3 | PL OEL |
| | Further inform | Further information: Skin | | |
| Ethanediol | | STEL | 40 ppm | 2000/39/EC |
| | | | 104 mg/m3 | |
| | Further information: Identifies the possibility of significant uptake through the | | | |
| Eth an artial | skin, Indicative | | | |
| Ethanediol | | TWA | 20 ppm 52 mg/m3 | 2000/39/EC |
| | Further information: Identifies the possibility of significant uptake through the | | | |
| | skin, Indicative | | | |

Biological occupational exposure limits

No biological limit allocated.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|-------------------|-----------|-----------------|------------------------------|--------------------|
| Diethylene glycol | Workers | Dermal | Long-term systemic effects | 43 mg/kg bw/day |
| Diethylene glycol | Workers | Inhalation | Long-term local ef- fects | 60 mg/m3 |
| Diethylene glycol | Consumers | Dermal | Long-term systemic effects | 21 mg/kg bw/day |
| Diethylene glycol | Consumers | Inhalation | Long-term local ef- fects | 12 mg/m3 |

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name | Environmental Compartment | Value |
|-------------------|---------------------------|-------|
| Diethylene glycol | | |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Remarks: Exposure assessments have not been presented for the environment therefore PNEC values not required.

8.2 Exposure controls

Engineering measures

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:

Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

Eye washes and showers for emergency use.

General Information

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Personal protective equipment

Read in conjunction with the Exposure Scenario for your specific use contained in the Annex. The provided information is made in consideration of the PPE directive (Council Directive 89/686/EEC) and the CEN European Committee for Standardisation (CEN) standards.

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Eye protection : If material is handled such that it could be splashed into eyes,

protective eyewear is recommended. Approved to EU Standard EN166.

Hand protection

Remarks : Where hand contact with the product may occur the use of

gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. Longer term protection: Nitrile rubber gloves. Incidental contact/Splash protection: PVC or neoprene rubber gloves. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024 3.3 12.02.2025 800001033914 Print Date 19.02.2025

appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Appli-

Skin and body protection : Skin protection is not ordinarily required beyond standard

work clothes.

It is good practice to wear chemical resistant gloves. Protective clothing approved to EU Standard EN14605.

cation of a non-perfumed moisturizer is recommended.

Respiratory protection : If engineering controls do not maintain airborne concentra-

tions to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing appa-

ratus.

Where air-filtering respirators are suitable, select an appro-

priate combination of mask and filter.

If air-filtering respirators are suitable for conditions of use: Select a filter suitable for the combination of organic gases and vapours and particles meeting EN14387 and EN143 [Filter type A/P for use against certain organic gases and vapours with a boiling point >65°C (149°F) and for use

against particles].

Thermal hazards : Not applicable

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Slightly viscous liquid.

Colour : colourless

Odour : mild

Odour Threshold : Data not available

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Melting point/freezing point : -10 °C

Boiling point/boiling range : 244 - 250 °C

Flammability

Flammability (solid, gas) : Not applicable

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit / Upper flammability limit

10,8 %(V)

Lower explosion limit /

Lower flammability limit

1,6 %(V)

Flash point : 149 °C

Method: Pensky-Martens closed cup

Auto-ignition temperature : 365 °C

Decomposition temperature

Decomposition tempera-

Data not available

ture

pH : Not applicable

Viscosity

Viscosity, dynamic : Data not available

Viscosity, kinematic : 33 mm2/s (20 °C)

Method: ASTM D445

Solubility(ies)

Water solubility : completely soluble

Partition coefficient: n-

octanol/water

: log Pow: -1,98

Vapour pressure : < 1,3 Pa (20 °C)

Relative density : 1,12

Method: ASTM D4052

Density : 1.116 g/cm3 (20 °C)

Method: ASTM D4052

Relative vapour density : 3,7

Particle characteristics

Particle size : Data not available

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

9.2 Other information

Explosive properties : Not applicable

Oxidizing properties : Data not available

Evaporation rate : < 0,01

Method: ASTM D 3539, nBuAc=1

Conductivity: > 10,000 pS/m

A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid, This material is not expected to be

a static accumulator.

Surface tension : Data not available

Molecular weight : 106,12 g/mol

SECTION 10: Stability and reactivity

10.1 Reactivity

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

10.2 Chemical stability

No hazardous reaction is expected when handled and stored according to provisions Oxidises on contact with air.

10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

Product cannot ignite due to static electricity.

10.5 Incompatible materials

Materials to avoid : Strong oxidising agents.

Strong acids. Strong bases.

10.6 Hazardous decomposition products

Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of : Exposure may occur via inhalation, ingestion, skin absorption,

exposure skin or eye contact, and accidental ingestion.

Acute toxicity

Components:

Diethylene glycol:

Acute oral toxicity : LD 50 (Rat, male and female): > 5.000 mg/kg

Method: Literature data

Remarks: Harmful if swallowed.

There is a marked difference in acute oral toxicity between rodents and man, man being more susceptible than rodents. The estimated fatal dose for man is 100 milliliters (1/2 cup). This material has also been shown to be toxic and potentially

lethal by ingestion to cats and dogs.

Acute inhalation toxicity : LC 50 (Rat): Exposure time: 4 h

Test atmosphere: Aerosol Method: Literature data

Remarks: LC50 greater than near-saturated vapour concen-

tration.

Based on available data, the classification criteria are not met.

Acute dermal toxicity : LD 50 (Rabbit): > 5.000 mg/kg

Method: Literature data

Remarks: Based on available data, the classification criteria

are not met.

Skin corrosion/irritation

Components:

Diethylene glycol:

Species : Rabbit

Method : Literature data

Remarks : Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Components:

Diethylene glycol:

Species : Rabbit

Method : Literature data

Remarks : Based on available data, the classification criteria are not met.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Respiratory or skin sensitisation

Components:

Diethylene glycol:

Species : Guinea pig

Method : Regulation (EC) No. 440/2008, Annex, B.6

Remarks : Based on available data, the classification criteria are not met.

Method : Tested according to Annex V of Directive 67/548/EEC.

Germ cell mutagenicity

Components:

Diethylene glycol:

Genotoxicity in vitro : Method: OECD Test Guideline 471

Remarks: Based on available data, the classification criteria

are not met.

Method: OECD Test Guideline 473

Remarks: Based on available data, the classification criteria

are not met.

Method: OECD Test Guideline 476

Remarks: Based on available data, the classification criteria

are not met.

Method: OECD Test Guideline 479

Remarks: Based on available data, the classification criteria

are not met.

Genotoxicity in vivo : Species: Mouse

Method: OECD Test Guideline 474

Remarks: Based on available data, the classification criteria

are not met.

Germ cell mutagenicity- As-

sessment

This product does not meet the criteria for classification in

categories 1A/1B.

Carcinogenicity

Components:

Diethylene glycol:

Species : Rat, male and female

Application Route : Oral

Method : Literature data

Remarks : Based on available data, the classification criteria are not met.

Tumours produced in animals are not considered relevant to

humans.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Carcinogenicity - Assess-

ment

This product does not meet the criteria for classification in

categories 1A/1B.

| Material | GHS/CLP Carcinogenicity Classification |
|-------------------|--|
| Diethylene glycol | No carcinogenicity classification. |
| Ethanediol | No carcinogenicity classification. |

Reproductive toxicity

Components:

Diethylene glycol:

Effects on fertility : Species: Mouse

Sex: male and female Application Route: Oral

Method: Acceptable non-standard method.

Remarks: Based on available data, the classification criteria

are not met.

Reproductive toxicity - As-

sessment

This product does not meet the criteria for classification in

categories 1A/1B.

STOT - single exposure

Components:

Diethylene glycol:

Remarks : Based on available data, the classification criteria are not met.

Inhalation of vapours or mists may cause irritation to the res-

piratory system.

Ingestion may cause drowsiness and dizziness.

STOT - repeated exposure

Components:

Diethylene glycol:

Remarks : Based on available data, the classification criteria are not met.

Repeated dose toxicity

Components:

Diethylene glycol:

Species : Rat, male and female

Application Route : Oral

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Method : Acceptable non-standard method.

Target Organs : No specific target organs noted

NOAEL : 300 mg/kg Exposure time : 98 Days

LOAEL : 1500 mg/kg Exposure time : 98 Days

Species : Dog, male Application Route : Dermal

Method : OECD Test Guideline 410
Target Organs : No specific target organs noted

NOAEL : 4440 mg/kg

LOAEL : 8880 mg/kg

Aspiration toxicity

Components:

Diethylene glycol:

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components consid-

ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Further information

Product:

Remarks : Unless indicated otherwise, the data presented is representa-

tive of the product as a whole, rather than for individual com-

ponent(s).

Components:

Diethylene glycol:

Remarks : Classifications by other authorities under varying regulatory

frameworks may exist.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

SECTION 12: Ecological information

12.1 Toxicity

Components:

Diethylene glycol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l

Exposure time: 96 h Method: Literature data. Remarks: Practically non toxic:

Method: Other guideline method. Remarks: LL/EL/IL50 > 100 mg/l

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: Other guideline method. Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic plants : EC50 (Scenedesmus quadricauda (Green algae)): > 100 mg/l

Exposure time: 72 h

Method: Information given is based on data obtained from

similar substances.

Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to microorganisms : EC20 (Activated sludge, domestic waste): > 1.000 mg/l

Exposure time: 3 h

Method: Test(s) equivalent or similar to OECD Guideline 209

Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic tox-

icity)

NOEC: > 40 mg/l Exposure time: 28 d

Species: Pimephales promelas (fathead minnow)

Method: Information given is based on data obtained from

similar substances.

Remarks: NOEC/NOEL > 100 mg/l

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: > 100 mg/l

Species: Ceriodaphnia dubia (Water flea)

Method: Information given is based on data obtained from

similar substances.

Remarks: NOEC/NOEL > 100 mg/l

12.2 Persistence and degradability

Components:

Diethylene glycol:

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Biodegradability : Biodegradation: 70 - 80 %

Exposure time: 28 d

Method: OECD Test Guideline 301B Remarks: Inherently biodegradable.

12.3 Bioaccumulative potential

Components:

Diethylene glycol:

Bioaccumulation : Remarks: Does not bioaccumulate significantly.

12.4 Mobility in soil

Components:

Diethylene glycol:

Mobility : Remarks: If the product enters soil, one or more constituents

will or may be mobile and may contaminate groundwater.,

Dissolves in water.

12.5 Results of PBT and vPvB assessment

Components:

Diethylene glycol:

Assessment : The substance does not fulfill all screening criteria for persis-

tence, bioaccumulation and toxicity and hence is not consid-

ered to be PBT or vPvB..

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to

have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological infor-

mation

Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Components:

Diethylene glycol:

Additional ecological infor-

mation

: Data not available

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Recover or recycle if possible.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal meth-

ods in compliance with applicable regulations.

Remove all packaging for recovery or waste disposal. Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.

Do not dispose into the environment, in drains or in water courses.

Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

Disposal should be in accordance with applicable regional,

national, and local laws and regulations.

Local regulations may be more stringent than regional or national requirements and must be complied with.

MARPOL - see International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which provides tech-

nical aspects at controlling pollutions from ships.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably

to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

SECTION 14: Transport information

14.1 UN number or ID number

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good
: Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.4 Packing group

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.5 Environmental hazards

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : Special Precautions: Refer to Section 7, Handling & Storage,

for special precautions which a user needs to be aware of or

needs to comply with in connection with transport.

14.7 Maritime transport in bulk according to IMO instruments

Pollution category : Z Ship type : 3

Product name : Diethylene glycol

Additional Information: This product may be transported under nitrogen blanketing.

Nitrogen is an odourless and invisible gas. Exposure to nitrogen enriched atmospheres displaces available oxygen which may cause asphyxiation or death. Personnel must observe strict safety precautions when involved with a confined space

entry.

Transport in bulk according to Annex II of Marpol and the IBC

Code

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Date of last issue: 30.07.2024 Version Revision Date: SDS Number:

3.3 12.02.2025 800001033914 Print Date 19.02.2025

SECTION 15: Regulatory information

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

REACH - List of substances subject to authorisation : Product is not subject to Authorisa-

(Annex XIV) tion under REACH.

REACH - Candidate List of Substances of Very High This product does not contain sub-

Concern for Authorisation (Article 59). stances of very high concern (Regu-

lation (EC) No 1907/2006 (REACH),

Article 57).

Other regulations:

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Act of 25 February 2011 on chemical substances and their mixtures (Dz.U. 2011 nr 63 poz. 322).

Ordinance of the Minister of Health of 12 January 2015 concerning the criteria and procedures for classification of chemical substances and their mixtures (Dz.U. 2015 poz. 208).

Regulation of the Minister of Labor and Social Policy of 6th June 2014 concerning the highest allowable concentrations and levels of agents harmful for health in the workplace (Dz.U. 2018 poz. 1286).

Regulations of the Minister of Economy, Labor and Social Policy of 21 December 2005 concerning the basic requirements for personal protective equipment (Dz.U. 2005 nr 259 poz. 2173).

Ordinance of the Minister of Health of 9 September 2016 on the health and safety of workers related to chemical agents at work (Dz.U. 2016 poz. 1488).

Regulation of the Minister of Health of 2nd February 2011 concerning tests and measurement of agents harmful for health in the workplace (Dz.U. 2011 nr 33 poz 166).

Regulation of the Minister of Health of 20 April 2012 on the labelling of packaging of dangerous substances and mixtures of dangerous substances and mixtures (Dz.U. 2011 nr 33 poz. 166). Act of 14 December 2012 on Waste (Dz.U. 2013 poz. 21).

Act of 13 June 2013 on packaging and packaging waste (Dz.U. 2013 poz. 888).

Regulation of the Minister of Environment of 9 December 2014 on the Waste Catalog (Dz.U. 2014 poz. 1923).

Act of 19 August 2011 on the carriage of dangerous goods (Dz.U. 2011 nr 227 poz. 1367).

The components of this product are reported in the following inventories:

DSL Listed

IECSC Listed

ENCS Listed

KECI Listed

NZIoC Listed

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

PICCS : Listed

TSCA : Listed

TCSI : Listed

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Full text of other abbreviations

2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first

list of indicative occupational exposure limit values

PL OEL : Ordinance of the Minister of Family, Labour and Social Policy

of 12 June 2018 concerning the highest allowable concentrations and levels of the agents harmful for health in the work-

place (Dz.U 2018 pos 1286, with later amendments)

2000/39/EC / TWA : Limit Value - eight hours 2000/39/EC / STEL : Short term exposure limit

PL OEL / NDS : Maximal Admissible Concentration

PL OEL / NDSch : Maximal Admissible Temporary Concentration

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road: AIIC - Australian Inventory of Industrial Chemicals: ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance: PICCS - Philippines Inventory of Chemicals and Chemical Substances: (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet;

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice : Provide adequate information, instruction and training for op-

erators.

Other information : For Industry guidance and tools on REACH please visit the

CEFIC website at http://cefic.org/Industry-support.

The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not consid-

ered to be PBT or vPvB.

A vertical bar (|) in the left margin indicates an amendment

from the previous version.

This product is classified as R22/H302 Harmful if swallowed. The same control advice applies to all uses of this product and is included in Section 8 of the SDS. An exposure scenario is

not presented.

Sources of key data used to compile the Safety Data

Sheet

The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU

IUCLID date base, EC 1272 regulation, etc).

Classification of the mixture:

Classification procedure:

Acute Tox. 4 H302 Expert judgement and weight of evi-

dence determination.

Identified Uses according to the Use Descriptor System

Uses - Worker

Title : Manufacture of substance

- Industrial

Uses - Worker

Title : Use as an intermediate

- Industrial

Uses - Worker

Title : Distribution of substance

- Industrial

Uses - Worker

Title : Formulation & (re)packing of substances and mixtures

- Industrial

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Uses - Worker

Title : Uses in Coatings

- Industrial

Uses - Worker

Title : Uses in Coatings

- Professional

Uses - Worker

Title : Use in Cleaning Agents

- Industrial

Uses - Worker

Title : Use in Cleaning Agents

- Professional

Uses - Worker

Title : Lubricants

- Industrial

Uses - Worker

Title : Metal working fluids / rolling oils

- Industrial

Uses - Worker

Title : Metal working fluids / rolling oils

- Professional

Uses - Worker

Title : Functional Fluids

- Industrial

Uses - Worker

Title : Functional Fluids

- Professional

Uses - Worker

Title : De-icing and anti-icing applications

- Professional

Uses - Worker

Title : Use in laboratories

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

- Industrial

Uses - Worker

Title : Use in laboratories

- Professional

Uses - Worker

Title : Use as a fuel

- Professional

Uses - Worker

Title : Use in Oil and Gas field drilling and production operations

- Industrial

Identified Uses according to the Use Descriptor System

Uses - Consumer

Title : Uses in Coatings

- Consumer

Uses - Consumer

Title : Use in Cleaning Agents

- Consumer

Uses - Consumer

Title : De-icing and anti-icing applications

- Consumer

Uses - Consumer

Title : Other Consumer Uses

- Consumer

Uses - Consumer

Title : Use as a fuel

- Consumer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

PL / EN

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000645 | | |
|------------------|---|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE | |
| Title | Manufacture of substance- Industrial | |
| Use Descriptor | Sector of Use: SU 3, SU8, SU9 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 15 Environmental Release Categories: ERC1, ERC4 | |
| Scope of process | Manufacture of the substance or use as a process chemical or extraction agent. Includes recycling/ recovery, material transfers, storage, maintenance and loading (including marine vessel/barge, road/rail car and bulk container), sampling and associated laboratory activities. | |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT | | |
|--|---|--|--|
| | MEASURES | | |
| Additional Information | No exposure assessment presented for the environment. | | |
| | · | | |
| Section 2.1 | Control of Worker Exposure | | |
| Product Characteristics | | | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP | | |
| | | | |
| Concentration of the Sub- | Covers percentage substance in the product up to 100%., | | |
| stance in Mixture/Article | Unless stated otherwise., | | |
| Frequency and Duration of Use | | | |
| Covers daily exposures up to 8 hours (unless stated differently). | | | |
| Other Operational Conditio | ns affecting Exposure | | |
| Assumes a good basic standard of occupational hygiene is implemented. | | | |
| Assumes use at not more than 20°C above ambient temperature (unless stated differently). | | | |
| | | | |
| Contributing Scenarios Risk Management Measures | | | |
| General exposures (closed | No specific measures identified | | |

| Contributing Scenarios | Risk Management Measures |
|--|---|
| General exposures (closed systems)elevated temperatureContinuous processPROC1 | No specific measures identified. |
| General exposures (closed systems)with occasional controlled exposure.elevated temperature-Continuous processPROC2 | Provide extraction ventilation at points where emissions occur. |
| General exposures.Use in contained batch process-esPROC3 | No specific measures identified. |
| General exposures.Batch processPROC4 | No specific measures identified. |
| Process samplingelevated temperaturePROC2 | Use a sampling system designed to control exposure. |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| Equipment cleaning and maintenancePROC8a | Drain down and flush system prior to equipment opening or maintenance. |
|---|--|
| Bulk transfersDedicated facilityPROC8b | Use in semi-automated and predominantly enclosed filling lines. |
| Bulk product storage(closed systems)PROC1 | No specific measures identified. |
| Laboratory activi- tiesPROC15 | No specific measures identified. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION |
|--|---------------------|
| Section 3.1 - Health | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise | |
| indicated. | |

Section 3.2 - Environment

No exposure assessment presented for the environment.

| | SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|---|---|---|
| | Section 4.1 - Health | |
| Г | Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management | |

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

No exposure assessment presented for the environment.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000647 | |
|------------------|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Use as an intermediate- Industrial |
| Use Descriptor | Sector of Use: SU 3, SU8, SU9 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC15 Environmental Release Categories: ERC6a |
| Scope of process | Use of substance as an intermediate (not related to Strictly Controlled Conditions). Includes recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container). |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|---|---|
| Additional Information | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Worker Exposure |
| Product Characteristics | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the product up to 100%., Unless stated otherwise., |
| Frequency and Duration of Use | |
| Covers daily exposures up to | o 8 hours (unless stated differently). |
| Other Operational Conditions affecting Exposure | |
| Assumes a good basic standard of occupational hygiene is implemented. | |

Assumes use at not more than 20°C above ambient temperature (unless stated differently).

| Contributing Scenarios | Risk Management Measures |
|--|---|
| General exposures (closed systems)Continuous processPROC1 | No specific measures identified. |
| General exposures (closed systems) with occasional controlled exposure. Continuous process PROC2 | No specific measures identified. |
| General exposures.Use in contained batch process-esPROC3 | No specific measures identified. |
| General exposures.Batch processPROC4 | No specific measures identified. |
| Process samplingPROC2 | Ensure dedicated sample points are provided. |
| Equipment cleaning and | Drain down and flush system prior to equipment opening or |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| Section 2.2 | Control of Environmental Exposure |
|--|---|
| Laboratory activi- tiesPROC15 | No specific measures identified. |
| Bulk product storage(closed systems)PROC1 | No specific measures identified. |
| Bulk transfersNon- dedicated facilityPROC8a | Ensure material transfers are under containment or extract ventilation. |
| Bulk transfersDedicated facilityPROC8b | No specific measures identified. |
| maintenancePROC8a | maintenance. |

| SECTION 3 | EXPOSURE ESTIMATION |
|--|---------------------|
| Section 3.1 - Health | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise | |
| indicated | |

Section 3.2 - Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|---|---|
| Section 4.1 - Health | |
| Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management | |
| Measures/Operational Conditions outlined in Section 2 are implemented. | |

Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment No exposure assessment presented for the environment.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000646 | |
|------------------|--|
| | |
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Distribution of substance- Industrial |
| Use Descriptor | Sector of Use: SU 3, SU8, SU9 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15 Environmental Release Categories: ERC1, ERC2, ERC3, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7 |
| Scope of process | Loading (including marine vessel/barge, rail/road car and IBC loading) and repacking (including drums and small packs) of substance, including its sampling, storage, unloading distribution and associated laboratory activities. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES | |
|---|---|--|
| Additional Information | No exposure assessment presented for the environment. | |
| Section 2.1 | Control of Worker Exposure | |
| Product Characteristics | | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP | |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the product up to 100%., Unless stated otherwise., | |
| Frequency and Duration of Use | | |
| Covers daily exposures up t | to 8 hours (unless stated differently). | |
| Other Operational Conditi | ons affecting Exposure | |
| • | dard of occupational hygiene is implemented. | |

Assumes a good basic standard of occupational hygiene is implemented.

Assumes use at not more than 20°C above ambient temperature (unless stated differently).

| Contributing Scenarios | Risk Management Measures |
|--|---|
| General exposures (closed systems)Continuous processPROC1 | No specific measures identified. |
| General exposures (closed systems) with occasional controlled exposure. Continuous process PROC2 | No specific measures identified. |
| General exposures.Use in contained batch process-esPROC3 | No specific measures identified. |
| General exposures.Batch processPROC4 | No specific measures identified. |
| Product sampling.PROC2 | Ensure dedicated sample points are provided. |
| Equipment cleaning and | Drain down and flush system prior to equipment opening or |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| maintenancePROC8a | maintenance. |
|--|---|
| Bulk transfersDedicated facilityPROC8b | No specific measures identified. |
| Bulk transfersNon- dedicated facilityPROC8a | Ensure material transfers are under containment or extract ventilation. |
| Drum/batch transfersDedicated facilityPROC8b | No specific measures identified. |
| Drum and small package fillingPROC9 | Fill containers/cans at dedicated filling points supplied with local extract ventilation. |
| Bulk product storage(closed systems)PROC1 | No specific measures identified. |
| Laboratory activitiesPROC15 | No specific measures identified. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION |
|--|---------------------|
| Section 3.1 - Health | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise | |

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|----------------------|---|
| Section 4.1 - Health | |
| D. P. (1. 1 | |

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

No exposure assessment presented for the environment.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000648 | |
|------------------|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Formulation & (re)packing of substances and mixtures- Industrial |
| Use Descriptor | Sector of Use: SU 3, SU 10 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 Environmental Release Categories: ERC2 |
| Scope of process | Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|---|---|
| Additional Information | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Worker Exposure |
| Product Characteristics | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the product up to 100%., Unless stated otherwise., |
| Frequency and Duration of Use | |
| Covers daily exposures up t | o 8 hours (unless stated differently). |
| Other Operational Condition | ons affecting Exposure |
| l e | dard of occupational hygiene is implemented. |
| l e | |

Assumes use at not more than 20°C above ambient temperature (unless stated differently).

| Contributing Scenarios | Risk Management Measures |
|---|---|
| General exposures (closed systems)Continuous processPROC1 | No specific measures identified. |
| General exposures (closed systems)with occasional controlled exposure.Continuous processPROC2 | No specific measures identified. |
| General exposures.Use in contained batch process-esPROC3 | No specific measures identified. |
| General exposures.Batch processPROC4 | No specific measures identified. |
| Mixing operations (open systems)PROC5 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| Production or preparation or articles by tabletting, compression, extrusion or pelletisationPROC14 | No specific measures identified. |
|--|---|
| Product sampling.PROC9 | Ensure dedicated sample points are provided. |
| Equipment cleaning and maintenancePROC8a | Drain down and flush system prior to equipment opening or maintenance. |
| Bulk transfersDedicated facilityPROC8b | No specific measures identified. |
| Bulk transfersNon- dedicated facilityPROC8a | Ensure material transfers are under containment or extract ventilation. |
| Drum/batch transfersDedicated facilityPROC8b | No specific measures identified. |
| Drum and small package fillingPROC9 | Fill containers/cans at dedicated filling points supplied with local extract ventilation. |
| Bulk product storage(closed systems)PROC1 | No specific measures identified. |
| Laboratory activitiesPROC15 | No specific measures identified. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION |
|----------------------|---------------------|
| Section 3.1 - Health | |
| | |

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE |
|----------------------|---------------------------------------|
| | EXPOSURE SCENARIO |
| Section 4.1 - Health | |

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users

should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

No exposure assessment presented for the environment.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000649 | |
|------------------|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Uses in Coatings- Industrial |
| Use Descriptor | Sector of Use: SU 3 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC10, PROC13, PROC15 Environmental Release Categories: ERC4 |
| Scope of process | Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|--|--|
| Additional Information | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Worker Exposure |
| Product Characteristics | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP |
| Concentration of the Sub- | Covers percentage substance in the product up to 100%., |
| stance in Mixture/Article | Unless stated otherwise., |
| Frequency and Duration of | Use |
| | 8 hours (unless stated differently). |
| Other Operational Condition | |
| Assumes a good basic stand | lard of occupational hygiene is implemented. |
| Assumes use at not more that | an 20°C above ambient temperature (unless stated differently). |
| Contributing Scenarios | D' 1 34 (34 |
| | Risk Management Measures |
| General exposures (closed systems)PROC1 | No specific measures identified. |
| General exposures (closed | |
| General exposures (closed systems)PROC1 | No specific measures identified. |
| General exposures (closed systems)PROC1 General exposures (closed systems)with sample col- | No specific measures identified. |
| General exposures (closed systems)PROC1 General exposures (closed systems)with sample collectionPROC2 | No specific measures identified. No specific measures identified. |
| General exposures (closed systems)PROC1 General exposures (closed systems)with sample collectionPROC2 Film formation - force drying, stoving and other technologies.PROC2 | No specific measures identified. No specific measures identified. No specific measures identified. |
| General exposures (closed systems)PROC1 General exposures (closed systems)with sample collectionPROC2 Film formation - force drying, stoving and other technologies.PROC2 Film formation - air dry- | No specific measures identified. No specific measures identified. |
| General exposures (closed systems)PROC1 General exposures (closed systems)with sample collectionPROC2 Film formation - force drying, stoving and other technologies.PROC2 Film formation - air dryingPROC2 | No specific measures identified. No specific measures identified. No specific measures identified. No specific measures identified. |
| General exposures (closed systems)PROC1 General exposures (closed systems)with sample collectionPROC2 Film formation - force drying, stoving and other technologies.PROC2 Film formation - air dryingPROC2 Mixing operations (closed systems)PROC3 | No specific measures identified. No specific measures identified. No specific measures identified. No specific measures identified. No specific measures identified. |
| General exposures (closed systems)PROC1 General exposures (closed systems)with sample collectionPROC2 Film formation - force drying, stoving and other technologies.PROC2 Film formation - air dryingPROC2 Mixing operations (closed | No specific measures identified. No specific measures identified. No specific measures identified. No specific measures identified. |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| material for applicationPROC5 | |
|--|--|
| Material transfersDedicated facilityPROC8b | No specific measures identified. |
| Bulk transfersNon- dedicated facilityPROC8a | Ensure material transfers are under containment or extract ventilation. |
| Drum/batch transfer- sPROC8b | Use drum pumps or carefully pour from container. |
| Spraying (automatic/robotic)PROC7 | Carry out in a vented booth or extracted enclosure. Ensure the ventilation system is regularly maintained and tested. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. |
| ManualSprayingPROC7 | Carry out in a vented booth or extracted enclosure. Ensure the ventilation system is regularly maintained and tested. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. |
| Roller, spreader, flow applicationPROC10 | Use long handled brushes and rollers where possible. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Dipping, immersion and pouringPROC13 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Laboratory activi- tiesPROC15 | No specific measures identified. |
| Equipment cleaning and maintenancePROC8a | Drain down system prior to equipment opening or maintenance. |
| Storage.PROC1 | Store substance within a closed system. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION |
|--|---------------------|
| Section 3.1 - Health | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise | |

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

| Section 3.2 - Environment | |
|---|--|
| No exposure assessment presented for the environment. | |

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE |
|-----------|---------------------------------------|
| | EXPOSURE SCENARIO |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users

should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

No exposure assessment presented for the environment.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

nologies.PROC2

Material trans-

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000650 | |
|------------------|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Uses in Coatings- Professional |
| Use Descriptor | Sector of Use: SU 22 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19 Environmental Release Categories: ERC8a, ERC8d |
| Scope of process | Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods, and film formation), and equipment cleaning, maintenance and associated laboratory activities. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|---|---|
| Additional Information | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Worker Exposure |
| Product Characteristics | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the product up to 100%., Unless stated otherwise., |
| Frequency and Duration of | Use |
| Covers daily exposures up to | o 8 hours (unless stated differently). |
| Other Operational Condition | ons affecting Exposure |
| Assumes a good basic stand | lard of occupational hygiene is implemented. |
| Assumes use at not more that | an 20°C above ambient temperature (unless stated differently). |
| Contributing Scenarios | Risk Management Measures |
| Filling/ preparation of equipment from drums or containers.PROC8b | No specific measures identified. |
| General exposures (closed systems)Use in contained systemsPROC1 | No specific measures identified. |
| Preparation of material for applicationPROC5 | No specific measures identified. |
| Film formation - air dry-ingPROC2 | No specific measures identified. |
| Film formation - force dry- ing, stoving and other tech- | No specific measures identified. |

Use drum pumps or carefully pour from container.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| fersDrum/batch trans- | |
|---|---|
| fersNon-dedicated facili- | |
| tyPROC8a | |
| Material trans- fersDrum/batch trans- fersDedicated facili- tyPROC8b | No specific measures identified. |
| Roller, spreader, flow applicationPROC10 | Provide extraction ventilation at points where emissions occur. Use long handled brushes and rollers where possible. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| ManualSprayingPROC7 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Carry out in a vented booth or extracted enclosure. , or: Wear a respirator conforming to EN140 with Type A/P2 filter or better. |
| Dipping, immersion and pouringPROC13 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Hand application - finger- paints, pastels, adhe- sivesPROC19 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Laboratory activi- tiesPROC15 | No specific measures identified. |
| Equipment cleaning and maintenancePROC8a | Drain down system prior to equipment opening or maintenance. |
| Storage.PROC1 | Store substance within a closed system. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 EXPOSURE ESTIMATION | | | |
|---|--|--|--|
| Section 3.1 - Health | | | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. | | | |

Section 3.2 -Environment No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|---|---|
| Section 4.1 - Health | |
| Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented | |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000651 | | |
|------------------|---|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE | |
| Title | Use in Cleaning Agents- Industrial | |
| Use Descriptor | Sector of Use: SU 3 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC10, PROC13 Environmental Release Categories: ERC4 | |
| Scope of process | Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers. Exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand), related equipment cleaning and maintenance. | |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES | | |
|---|---|--|--|
| Additional Information | No exposure assessment presented for the environment. | | |
| Section 2.1 | Control of Worker Exposure | | |
| Product Characteristics | | | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP | | |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the product up to 100%., Unless stated otherwise., | | |
| Frequency and Duration o | f Use | | |
| Covers daily exposures up t | o 8 hours (unless stated differently). | | |
| Other Operational Condition | ons affecting Exposure | | |
| Assumes a good basic stand | dard of occupational hygiene is implemented. | | |
| Assumes use at not more th | an 20°C above ambient temperature (unless stated differently). | | |

Contributing Scenarios Risk Management Measures Bulk transfersNon-Ensure material transfers are under containment or extract dedicated facilityPROC8a ventilation. Use in contained system-No specific measures identified. sAutomated process with (semi) closed systems.PROC1PROC2 Drum/batch transfer-Use drum pumps or carefully pour from container. sPROC3 Filling/ preparation of Wear chemically resistant gloves (tested to EN374) in combiequipment from drums or nation with 'basic' employee training. containers. Dedicated facilityPROC8b Use in contained batch Provide extraction ventilation at points where emissions ocprocessesTreatment by

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| heatingPROC3PROC4 | |
|--|--|
| Degreasing small objects in cleaning stationPROC13 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Cleaning with low-pressure washersPROC10 | Use long handled tools where possible. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Cleaning with high pressure washersPROC7 | Carry out in a vented booth or extracted enclosure. Ensure the ventilation system is regularly maintained and tested. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. |
| ManualCleaningSurfacesno sprayingPROC10 | Use long handled tools where possible. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | ECTION 3 EXPOSURE ESTIMATION | | | |
|--|------------------------------|--|--|--|
| Section 3.1 - Health | | | | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise | | | | |
| indicated. | | | | |

Section 3.2 - Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE | |
|---|---------------------------------------|--|
| | EXPOSURE SCENARIO | |
| Section 4.1 - Health | | |
| Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management | | |
| Measures/Operational Conditions outlined in Section 2 are implemented. | | |
| Where other Risk Management Measures/Operational Conditions are adopted, then users | | |
| should ensure that risks are managed to at least equivalent levels. | | |

Section 4.2 -Environment No exposure assessment presented for the environment.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000652 | |
|------------------|---|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Use in Cleaning Agents- Professional |
| Use Descriptor | Sector of Use: SU 22 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC10, PROC11, PROC13 Environmental Release Categories: ERC8a, ERC8d |
| Scope of process | Covers the use as a component of cleaning products including pouring/unloading from drums or containers; and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping automated and by hand). |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES | | |
|---|---|--|--|
| Additional Information | No exposure assessment presented for the environment. | | |
| Section 2.1 | Control of Worker Exposure | | |
| Product Characteristics | | | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP | | |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the product up to 100%., Unless stated otherwise., | | |
| Frequency and Duration o | f Use | | |
| Covers daily exposures up to 8 hours (unless stated differently). | | | |
| Other Operational Condition | ons affecting Exposure | | |
| | dard of occupational hygiene is implemented. an 20°C above ambient temperature (unless stated differently). | | |

Contributing Scenarios Risk Management Measures Filling/ preparation of equipment from Wear chemically resistant gloves (tested to EN374) drums or containers. Dedicated faciliin combination with 'basic' employee training. tyPROC8b Use in contained systemsAutomated pro-No specific measures identified. cess with (semi) closed systems.PROC1PROC2 Drum/batch transfersPROC8b Use drum pumps or carefully pour from container. Semi Automated process. (e.g.: Semi au-No specific measures identified. tomatic application of floor care and maintenance products)PROC4 Filling/ preparation of equipment from Use drum pumps or carefully pour from container. drums or containers. Non-dedicated facilityPROC8a ManualCleaningSurfacesDipping, immer-Wear chemically resistant gloves (tested to EN374) sion and pouringPROC13 in combination with 'basic' employee training.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| Cleaning with low-pressure w sPROC10 | asher- | Use long handled tools where possible. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
|--|---------------|--|
| Cleaning with high pressure washer-sPROC11 | | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Carry out in a vented booth or extracted enclosure., or: Wear a respirator conforming to EN140 with Type A/P2 filter or better. |
| ManualCleaningSurfacesSprayingPROC11 | | Provide extraction ventilation at points where emissions occur. Use long handled brushes and rollers where possible. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Ad hoc manual application via trigger sprays, dipping, etc.Rolling, BrushingPROC10 | | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Application of cleaning products in closed systemsPROC3PROC4 | | No specific measures identified. |
| Cleaning of medical devicesPROC13 | | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Section 2.2 | Control of Er | vironmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION |
|----------------------|---------------------|
| Section 3.1 - Health | |
| | |

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment No exposure assessment presented for the environment.

| GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO | | |
|---|--|--|
| Section 4.1 - Health | | |
| Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management | | |
| | | |

Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users

should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000653 | |
|------------------|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Lubricants- Industrial |
| Use Descriptor | Sector of Use: SU 3 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, PROC18 Environmental Release Categories: ERC4, ERC7 |
| Scope of process | Covers the use of formulated lubricants in closed and open systems including transfer operations, operation of machinery/engines and similar articles, reworking on reject articles, equipment maintenance and disposal of wastes. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES | |
|--|---|--|
| Additional Information | No exposure assessment presented for the environment. | |
| Section 2.1 | Control of Worker Exposure | |
| Product Characteristics | | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP | |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the product up to 100%., Unless stated otherwise., | |
| Frequency and Duration of Use | | |
| Covers daily exposures up to 8 hours (unless stated differently). | | |
| Other Operational Conditions affecting Exposure | | |
| Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature (unless stated differently). | | |

Contributing Scenarios Risk Management Measures General exposures (closed No specific measures identified. systems)PROC1PROC3 General exposures (open Wear suitable gloves tested to EN374. systems)PROC2PROC4 Bulk transfersDedicated No specific measures identified. facilityPROC8b Bulk transfersNon-dedicated Ensure material transfers are under containment or extract facilityPROC8a ventilation. Filling/ preparation of equip-Wear chemically resistant gloves (tested to EN374) in combiment from drums or containnation with 'basic' employee training. ers.PROC8b Initial factory fill of equip-Use in semi-automated and predominantly enclosed filling mentPROC9 lines. Operation and lubrication of Minimise exposure by partial enclosure of the operation or

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| high energy open equip- mentwith potential for aero- sol genera- tion.PROC17PROC18 | equipment and provide extract ventilation at openings. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
|---|---|
| Manual applications e.g. brushing, rollingPROC10 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Use long handled brushes and rollers where possible. |
| Treatment by dipping and pouringPROC13 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| SprayingPROC7 | Carry out in a vented booth or extracted enclosure. Ensure the ventilation system is regularly maintained and tested. |
| | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. |
| | vveai suitable coverails to prevent exposure to the skin. |
| Maintenance (of larger plant items) and machine set up-PROC8b | No specific measures identified. |
| Engine lubricant service- PROC9 | Handle substance within a closed system. |
| Maintenance of small itemsPROC8a | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Remanufacture of reject articlesPROC9 | Provide extraction ventilation at points where emissions occur. |
| Storage.PROC1 | No specific measures identified. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION |
|--|---------------------|
| Section 3.1 - Health | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise | |

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

| Section 3.2 -Environment |
|---|
| No exposure assessment presented for the environment. |

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|----------------------|---|
| Section 4.1 - Health | |

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Section 4.2 -Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000654 | |
|------------------|---|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Metal working fluids / rolling oils- Industrial |
| Use Descriptor | Sector of Use: SU 3 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17 Environmental Release Categories: ERC4 |
| Scope of process | Covers the use in formulated MWFs/rolling oils including transfer operations, rolling and annealing activities, cutting/machining activities, automated and manual application of corrosion protections (including brushing, dipping and spraying), equipment maintenance, draining and disposal of waste oils. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES | |
|--|---|--|
| Additional Information | No exposure assessment presented for the environment. | |
| Section 2.1 | Control of Worker Exposure | |
| Product Characteristics | | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP | |
| Concentration of the Sub- | Covers percentage substance in the product up to 100%., | |
| stance in Mixture/Article | Mixture/Article Unless stated otherwise., | |
| Frequency and Duration of Use | | |
| Covers daily exposures up to 8 hours (unless stated differently). | | |
| Other Operational Conditions affecting Exposure | | |
| Assumes a good basic standard of occupational hygiene is implemented. | | |
| Assumes use at not more than 20°C above ambient temperature (unless stated differently). | | |

| Contributing Scenarios | Risk I | Management Measures | |
|--|-----------|---|----|
| General exposures (closed sy tems)PROC1PROC3 | ys- | No specific measures identified. | |
| General exposures (open systems)PROC2PROC4 | 5- | Wear suitable gloves tested to EN374. | |
| Bulk transfersDedicated facili tyPROC8b | - | No specific measures identified. | |
| Bulk transfersNon-dedicated tyPROC8a | facili- | Ensure material transfers are under containment or extractiventilation. | ct |
| Filling/ preparation of equipm from drums or containers.PROC5PROC8bPROC9 | ent | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. | |
| Product sampling.PROC9 | | Use dedicated equipment. Wear suitable gloves tested to EN374. | |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| Metal machining opera- tionsPROC17 | Provide extraction ventilation at points where emissions occur. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
|---|--|
| Treatment by dipping and pour- ingPROC13 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| SprayingPROC7 | Carry out in a vented booth or extracted enclosure. Ensure the ventilation system is regularly maintained and tested. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. |
| ManualRoller, spreader, flow applicationPROC10 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Use long handled brushes and rollers where possible. |
| Automated metal roll- ing/formingPROC2 | Minimise exposure by partial enclosure of the operation of equipment and provide extract ventilation at openings. |
| Semi-automated metal roll- ing/formingPROC17 | Provide extraction ventilation at points where emissions occur. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Equipment cleaning and mainte- nancePROC8a | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Storage.PROC1 | Store substance within a closed system. |

| Section 2.2 | Control of Environmental Exposure |
|-------------|-----------------------------------|
| | |

| SECTION 3 | EXPOSURE ESTIMATION | |
|--|---------------------|--|
| Section 3.1 - Health | | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise | | |
| indicated. | | |

Section 3.2 -Environment No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|---|---|
| Section 4.1 - Health | |
| Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management | |

Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000655 | |
|------------------|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Metal working fluids / rolling oils- Professional |
| Use Descriptor | Sector of Use: SU 22 Process Categories: PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17 Environmental Release Categories: ERC8a, ERC8d |
| Scope of process | Covers the use in formulated MWFs including transfer operations, open and contained cutting/machining activities, automated and manual application of corrosion protections, draining and working on contaminated/reject articles, and disposal of waste oils. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|---|---|
| Additional Information | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Worker Exposure |
| Product Characteristics | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the product up to 100%., Unless stated otherwise., |
| Frequency and Duration of Use | |
| Covers daily exposures up to 8 hours (unless stated differently). | |
| Other Operational Conditions affecting Exposure | |
| Assumes a good basic standard of occupational hygiene is implemented. | |

Assumes use at not more than 20°C above ambient temperature (unless stated differently).

| Contributing Scenarios | Risk Management Measures | |
|---|--|--|
| General exposures (closed systems)PROC1PROC3 | No specific measures identified. | |
| Bulk transfersDedicated facilityPROC8b | No specific measures identified. | |
| Bulk transfersNon-dedicated facilityPROC8a | Ensure material transfers are under containment or extract ventilation. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. | |
| Filling/ preparation of equipment from drums or containers.Dedicated facilityPROC5PROC8bPROC9 | No specific measures identified. | |
| Filling/ preparation of equipment from drums or contain- | Ensure material transfers are under containment or extract ventilation. | |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

| ers.Non-dedicated facili- tyPROC8a | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
|--|---|
| Product sam- pling.PROC8bPROC9 | Use dedicated equipment. Wear suitable gloves tested to EN374. |
| Metal machining operationsPROC17 | Provide extraction ventilation at points where emissions occur. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Manual applications e.g. brushing, rollingPROC10 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Use long handled brushes and rollers where possible. |
| Treatment by dipping and pouringPROC13 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| SprayingPROC11 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Carry out in a vented booth or extracted enclosure. , or: Wear a respirator conforming to EN140 with Type A/P2 filter or better. |
| Equipment cleaning and maintenanceDedicated facilityPROC8b | No specific measures identified. |
| Equipment cleaning and maintenanceNon-dedicated facilityPROC8a | Provide extraction ventilation at points where emissions occur. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Storage.PROC1 | Store substance within a closed system. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION | |
|---|---------------------|--|
| Section 3.1 - Health | | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. | | |

| Section 3.2 -Environment | |
|---|--|
| No exposure assessment presented for the environment. | |

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|----------------------|---|
| Section 4.1 - Health | |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000656 | |
|------------------|---|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Functional Fluids- Industrial |
| Use Descriptor | Sector of Use: SU 3 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9 Environmental Release Categories: ERC7 |
| Scope of process | Use as functional fluids e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids in industrial equipment including maintenance and related material transfers. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RIS MEASURES | SK MANAGEMENT |
|---|---|-------------------|
| Additional Information | No exposure assessment presented for the | he environment. |
| Section 2.1 | Control of Worker Exposure | |
| Product Characteristics | | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STF | |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the prod Unless stated otherwise., | duct up to 100%., |
| Frequency and Duration of | Use | |
| Covers daily exposures up to 8 hours (unless stated differently). | | |
| Other Operational Condition | ns affecting Exposure | |
| | lard of occupational hygiene is implemented an 20°C above ambient temperature (unless | |

| Contributing Scenarios | Risk Management Measures |
|---|--|
| Bulk transfersDedicated facilityPROC8b | No specific measures identified. |
| Bulk transfersNon- dedicated facilityPROC8a | Ensure material transfers are under containment or extract ventilation. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Filling of arti- cles/equipmentPROC9 | Fill containers/cans at dedicated filling points supplied with local extract ventilation. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Filling/ preparation of equipment from drums or containers.PROC8b | Use dedicated equipment. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| General exposures.(closed systems)PROC1PROC3 | No specific measures identified. |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| General exposures.(open systems)PROC2PROC4 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
|--|--|
| Equipment maintenance- PROC8a | Drain down system prior to equipment opening or maintenance. Wear suitable gloves tested to EN374. |
| Remanufacture of reject articlesPROC9 | Drain down system prior to equipment opening or maintenance. Wear suitable gloves tested to EN374. |
| Storage.PROC1 | Store substance within a closed system. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION |
|--|---------------------|
| Section 3.1 - Health | |
| The ECETOC TRA tool has been used to estimate workplace exposures upless otherwise | |

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|----------------------|---|
| Section 4.1 - Health | |

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment No exposure assessment presented for the environment.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000657 | |
|------------------|---|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Functional Fluids- Professional |
| Use Descriptor | Sector of Use: SU 22 Process Categories: PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC9, PROC20 Environmental Release Categories: ERC9a, ERC9b |
| Scope of process | Use as functional fluids e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids in professional equipment including maintenance and related material transfers. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|--|---|
| Additional Information | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Worker Exposure |
| Product Characteristics | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP |
| Concentration of the Sub- | Covers percentage substance in the product up to 100%., |
| stance in Mixture/Article | Unless stated otherwise., |
| Frequency and Duration of | f Use |
| Covers daily exposures up to 8 hours (unless stated differently). | |
| Other Operational Condition | ons affecting Exposure |
| Assumes a good basic standard of occupational hygiene is implemented. | |
| Assumes use at not more than 20°C above ambient temperature (unless stated differently). | |

Contributing Scenarios Risk Management Measures Drum/batch transfersPROC8a Use drum pumps or carefully pour from container. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Use drum pumps or carefully pour from container. Transfer from/pouring from containersPROC9 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Use drum pumps or carefully pour from container. Filling/ preparation of equipment from drums or contain-Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. ers.PROC9PROC20 General exposures.(closed No specific measures identified. systems)PROC1PROC2PROC3 Remanufacture of reject arti-Drain down system prior to equipment opening or mainteclesPROC9 nance.

Wear suitable gloves tested to EN374.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| Equipment maintenance- PROC8a | Drain down system prior to equipment opening or maintenance. Wear suitable gloves tested to EN374. |
|--|--|
| Storage.PROC1 | Store substance within a closed system. |
| Drum/batch transfersDedicated facilityPROC8b | No specific measures identified. |

Section 2.2 Control of Environmental Exposure

| SECTION 3 | EXPOSURE ESTIMATION |
|----------------------|---------------------|
| Section 3.1 - Health | |
| | |

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|----------------------|---|
| Section 4.1 - Health | |

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000658 | |
|------------------|---|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | De-icing and anti-icing applications- Professional |
| Use Descriptor | Sector of Use: SU 22 Process Categories: PROC1, PROC2, PROC8a, PROC8b, PROC11 Environmental Release Categories: ERC8d |
| Scope of process | Ice prevention and de-icing of vehicles, aircraft and other equipment by spraying. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|--|---|
| Additional Information | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Worker Exposure |
| Product Characteristics | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP |
| Concentration of the Sub- | Covers percentage substance in the product up to 100%., |
| stance in Mixture/Article | Unless stated otherwise., |
| Frequency and Duration of | Use |
| Covers daily exposures up to | 8 hours (unless stated differently). |
| Other Operational Conditio | ns affecting Exposure |
| | ard of occupational hygiene is implemented. |
| Assumes use at not more than 20°C above ambient temperature (unless stated differently). | |
| Contributing Scenarios | Risk Management Measures |
| Bulk open unload- | Use dedicated equipment. |
| ing.PROC8a | , or: |
| | Ensure material transfers are under containment or extract ventilation. |
| Filling/ preparation of | Use drum pumps or carefully pour from container. |
| equipment from drums or | Wear chemically resistant gloves (tested to EN374) in combi- |
| containers.PROC8b | nation with 'basic' employee training. |
| General exposures.(closed systems)PROC1PROC2 | No specific measures identified. |
| Material transferselevated | Use dedicated equipment. |
| temperaturePROC8a | , or: |
| , | Ensure material transfers are under containment or extract ventilation. |
| Spraying/ fogging by ma- | Apply within a vented cab supplied with filtered air under posi- |
| chine applicationelevated | tive pressure and with a protection factor of >20. |
| temperaturePROC11 | |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| Spraying/ fogging by manual applicationPROC11 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Carry out in a vented booth or extracted enclosure. , or: Wear a respirator conforming to EN140 with Type A/P2 filter or better. |
|---|---|
| Equipment maintenance- PROC8a | Drain down system prior to equipment opening or maintenance. Wear suitable gloves tested to EN374. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION |
|---------------------------------------|--|
| Section 3.1 - Health | |
| The ECETOC TRA tool has be indicated. | peen used to estimate workplace exposures unless otherwise |

Section 3.2 -Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|---|---|
| Section 4.1 - Health | |
| Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management | |
| Measures/Operational Conditions outlined in Section 2 are implemented. | |

Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

| Section 4.2 -Environment |
|---|
| No exposure assessment presented for the environment. |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| Exposure oceriano - W | OI RCI |
|-----------------------|---|
| 30000000659 | |
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Use in laboratories- Industrial |
| Use Descriptor | Sector of Use: SU 3 Process Categories: PROC 15 Environmental Release Categories: ERC2, ERC4 |
| Scope of process | Use of the substance within laboratory settings, including material transfers and equipment cleaning. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|--|---|
| Additional Information | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Worker Exposure |
| Product Characteristics | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP |
| Concentration of the Sub- | Covers percentage substance in the product up to 100%., |
| stance in Mixture/Article | Unless stated otherwise., |
| Frequency and Duration o | f Use |
| Covers daily exposures up to | o 8 hours (unless stated differently). |
| Other Operational Condition | ons affecting Exposure |
| | dard of occupational hygiene is implemented. an 20°C above ambient temperature (unless stated differently). |
| Contributing Scenarios | Risk Management Measures |
| Laboratory activitiessmall scalePROC15 | No specific measures identified. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION |
|---|---------------------|
| Section 3.1 - Health | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. | |

Section 3.2 -Environment No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|--|---|
| Section 4.1 - Health | |
| Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. | |

Where other Risk Management Measures/Operational Conditions are adopted, then users

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000000660 | |
|------------------|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Use in laboratories- Professional |
| Use Descriptor | Sector of Use: SU 22 Process Categories: PROC15 Environmental Release Categories: ERC8a |
| Scope of process | Use of small quantities within laboratory settings, including material transfers and equipment cleaning. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|--|---|
| Additional Information | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Worker Exposure |
| Product Characteristics | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP |
| Concentration of the Sub- | Covers percentage substance in the product up to 100%., |
| stance in Mixture/Article | Unless stated otherwise., |
| Frequency and Duration o | f Use |
| Covers daily exposures up to | o 8 hours (unless stated differently). |
| Other Operational Condition | ons affecting Exposure |
| | dard of occupational hygiene is implemented. an 20°C above ambient temperature (unless stated differently). |
| Contributing Scenarios | Risk Management Measures |
| Laboratory activitiessmall scalePROC15 | No specific measures identified. |
| Section 2.2 | Control of Environmental Exposure |

| SECTION 3 | EXPOSURE ESTIMATION |
|---|---------------------|
| Section 3.1 - Health | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. | |

Section 3.2 - Environment No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|---|---|
| Section 4.1 - Health | |
| Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management | |

Measures/Operational Conditions outlined in Section 2 are implemented.

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Date of last issue: 30.07.2024 Version Revision Date: SDS Number:

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 300000010118 | |
|------------------|---|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Use as a fuel- Professional |
| Use Descriptor | Sector of Use: SU 22 Process Categories: PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16 Environmental Release Categories: ERC9a, ERC9b |
| Scope of process | Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|--|---|
| Additional Information | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Worker Exposure |
| Product Characteristics | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the product up to 100%., Unless stated otherwise., |
| Frequency and Duration of Use | |
| Covers daily exposures up to 8 hours (unless stated differently). | |
| Other Operational Conditions affecting Exposure | |
| Assumes use at not more than 20°C above ambient temperature (unless stated differently). | |
| Assumes a good basic standard of occupational hygiene is implemented. | |

| Contributing Scenarios | Risk Mana | gement Measures | - |
|---|-----------|---|----|
| Bulk transfersPROC8b | | Handle substance within a closed system. Clear transfer lines prior to de-coupling. Wear suitable gloves tested to EN374. Avoid carrying out operation for more than 4 hours | S. |
| Drum/batch transfersPROC8b | | Use drum pumps or carefully pour from container. Wear suitable gloves tested to EN374. | |
| Refueling.PROC8b | | Use drum pumps or carefully pour from container. Wear suitable gloves tested to EN374. | , |
| General exposures (closed systems)PROC1PROC2PROC3PROC16 | | No other specific measures identified. | |
| Equipment cleaning and maintenance- PROC8a | | Drain down and flush system prior to equipment opening or maintenance. Wear chemically resistant gloves (tested to EN37-in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the | , |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| | skin. |
|---------------|---|
| Storage.PROC1 | Store substance within a closed system. |

Section 2.2 Control of Environmental Exposure

No exposure assessment presented for the environment.

SECTION 3 EXPOSURE ESTIMATION Section 3.1 - Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|---------------|---|
| 0 (4 4 1114) | |

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Worker

| 30000010777 | | |
|------------------|---|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE | |
| Title | Use in Oil and Gas field drilling and production operations- Industrial | |
| Use Descriptor | Sector of Use: SU 3 Process Categories: PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b Environmental Release Categories: ERC4 | |
| Scope of process | Oil field well drilling and production operations (including drilling muds and well cleaning) including material transfers, onsite formulation, well head operations, shaker room activities and related maintenance. | |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES | |
|---|---|--|
| Additional Information | No exposure assessment presented for the environment. | |
| Section 2.1 | Control of Worker Exposure | |
| Product Characteristics | | |
| Physical form of product | Liquid, vapour pressure < 0.5 kPa at STP | |
| Concentration of the Substance in Mixture/Article | Covers percentage substance in the product up to 100%., Unless stated otherwise., | |
| Frequency and Duration of Use | | |
| Covers daily exposures up to 8 hours (unless stated differently). | | |
| Other Operational Conditions affecting Exposure | | |
| Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature (unless stated differently). | | |

Assumes use at not more than 20°C above ambient temperature (unless stated differently).

| Contributing Scenarios | Risk Management Measures |
|---|--|
| Bulk transfers from tote tanks and supply vesselsPROC8b | No specific measures identified. |
| Filling/ preparation of equipment from drums or containers.PROC8b | Use drum pumps or carefully pour from container. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Drilling mud (re-)formulationPROC3 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Drill floor operationsPROC4 | Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Operation of solids filtering equipmentelevated temperaturePROC4 | Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings. |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| Cleaning of solids filtering equipmentPROC8a | Wear suitable gloves tested to EN374. Provide a good standard of general ventil 3 to 5 air changes per hour). | ation (not less than |
|---|--|----------------------|
| Treatment and disposal of filtered solidsPROC3 | Wear suitable gloves tested to EN374. Provide a good standard of general ventil 3 to 5 air changes per hour). | ation (not less than |
| Process samplingPROC3 | Wear suitable gloves tested to EN374. | |
| General exposures (closed systems)PROC1 | No specific measures identified. | |
| Pouring from small containersPROC8a | Wear chemically resistant gloves (tested nation with 'basic' employee training. | to EN374) in combi- |
| General exposures (open systems)PROC4 | Wear suitable gloves tested to EN374. | |
| Equipment cleaning and maintenancePROC8a | Drain down system prior to equipment op nance. Wear chemically resistant gloves (tested nation with 'basic' employee training. | |
| General process exposures from enclosed process-esPROC2 | Store substance within a closed system. | |
| Section 2.2 | Control of Environmental Exposure | |
| No exposure assessment presented for the environment. | | |

| SECTION 3 | EXPOSURE ESTIMATION | |
|---|---------------------|--|
| Section 3.1 - Health | | |
| The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. | | |

Section 3.2 - Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO | |
|---|---|--|
| Section 4.1 - Health | | |
| Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. | | |

Section 4.2 -Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Consumer

| 30000001088 | | |
|------------------|---|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE | |
| Title | Uses in Coatings - Consumer | |
| Use Descriptor | Sector of Use: SU 21 Product Categories: PC1, PC9a, PC15, PC18, PC23, PC31, PC32, PC34 Environmental Release Categories: ERC8a, ERC8d | |
| Scope of process | Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning. | |

| SECTION 2 | OPERATIONAL CONDITIONS AND RIS | SK MANAGEMENT |
|--|--|------------------|
| Additional Information | No exposure assessment presented for t | the environment. |
| Section 2.1 | Control of Consumer Exposure | |
| Product Characteristics | | |
| Physical form of product | Liquid, vapour pressure > 10 Pa at STP | |
| Concentration of the Substance in Mixture/Article | Covers concentration up to (%): 5 % | |
| Amounts Used | | |
| for each use event, covers ar | mount up to (g): | 9.000 |
| Frequency and Duration of | | |
| Covers use up to (days/year) | | 365 |
| covers use up to (times/day of | of use): | 1 |
| Exposure (hours/event): | | 10 |
| Product Categories | OPERATIONAL CONDITIONS AND RIS | SK MANAGEMENT |
| Adhesives, sealants Glues DIY-use (carpet glue, tile glue, wood parquet glue). | DIY-use (carpet glue, tile | |
| g.a.c, are carpanyare grace, | For each use event, covers amount up to | 9.000 g |
| | covers use up to 0,25 day/year | J |
| | Covers use up to 1 times/day of use | |
| | Covers exposure up to 1,25 hours/even | t |
| | covers skin contact area up to (cm2): 11 | |
| | Covers use in room size of 58 m3 | |
| | Covers use under typical household vent | tilation. |
| | Covers use at ambient temperatures. | |
| Coatings and paints, thin- ners, paint removers Wa- terborne latex wall paint. | Covers concentrations up to 10 % | |
| • | For each use event, covers amount up to | 1.250 g |
| | covers use up to 1 day/year | |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

| | Covers use up to 1 times/day of use |
|--|---|
| | Covers exposure up to 2,2 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in room size of 20 m3 |
| | Covers use under typical household ventilation. |
| | Covers use at ambient temperatures. |
| Coatings and paints, thin- | Covers concentrations up to 10 % |
| ners, paint removers Sol- | Covers concentrations up to 10 % |
| vent rich, high solid, water borne paint. | |
| | For each use event, covers amount up to 1.250 g |
| | covers use up to 1 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 2,2 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in room size of 20 m3 |
| | Covers use under typical household ventilation. |
| | Covers use at ambient temperatures. |
| Coatings and paints, thinners, paint removers Aerosol spray can. | Covers concentrations up to 10 % |
| | For each use event, covers amount up to 300 g |
| | covers use up to 2 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 0,25 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in a one car garage (34 m3) under typical ventila- |
| | tion. |
| | Covers use at ambient temperatures. |
| Coatings and paints, thin- ners, paint removers Re- movers (paint-, glue-, wall paper-, sealant-remover). | Covers concentrations up to 10 % |
| , | For each use event, covers amount up to 1.250 g |
| | covers use up to 1 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 2,2 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in room size of 20 m3 |
| | Covers use under typical household ventilation. |
| | Covers use at ambient temperatures. |
| Non-metal-surface treat- ment products Waterborne | Covers concentrations up to 10 % |
| latex wall paint. | |
| | For each use event, covers amount up to 1.250 g |
| | covers use up to 1 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 2,2 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in room size of 20 m3 |
| | Covers use under typical household ventilation. |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

| | Covers use at ambient temperatures. |
|--|--|
| Non-metal-surface treat- | Covers concentrations up to 10 % |
| ment products Solvent rich, | |
| high solid, water borne | |
| paint. | |
| • | For each use event, covers amount up to 1.250 g |
| | covers use up to 1 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 2,2 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in room size of 20 m3 |
| | Covers use under typical household ventilation. |
| | Covers use at ambient temperatures. |
| Non-metal-surface treat- | Covers concentrations up to 10 % |
| ment products Aerosol | Covers concentrations up to 10 % |
| - | |
| spray can. | For each use event, severe amount up to 200 a |
| | For each use event, covers amount up to 300 g |
| | covers use up to 2 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 0,25 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in a one car garage (34 m3) under typical ventila- |
| | tion. |
| | Covers use at ambient temperatures. |
| Non-metal-surface treat- | Covers concentrations up to 10 % |
| ment products Removers | |
| (paint-, glue-, wall paper-, | |
| sealant-remover). | |
| | For each use event, covers amount up to 1.250 g |
| | covers use up to 1 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 2,2 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in room size of 20 m3 |
| | Covers use under typical household ventilation. |
| | Covers use at ambient temperatures. |
| Ink and toners | Covers concentrations up to 5 % |
| | For each use event, covers amount up to 50 g |
| | covers use up to 365 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 10 hours/event |
| | covers skin contact area up to (cm2): 215 cm2 |
| | 1 00.0.0 Chill Collicol Glock op to (Clife): E10 Clife |
| | |
| | Covers use in room size of 25 m3 |
| | Covers use in room size of 25 m3 Covers use under typical household ventilation. |
| Loothor tanning dvo finish | Covers use in room size of 25 m3 Covers use under typical household ventilation. Covers use at ambient temperatures. |
| Leather tanning, dye, finishing imprognation and care | Covers use in room size of 25 m3 Covers use under typical household ventilation. |
| ing, impregnation and care | Covers use in room size of 25 m3 Covers use under typical household ventilation. Covers use at ambient temperatures. |
| ing, impregnation and care products Polishes, wax / | Covers use in room size of 25 m3 Covers use under typical household ventilation. Covers use at ambient temperatures. |
| ing, impregnation and care products Polishes, wax / cream (floor, furniture, | Covers use in room size of 25 m3 Covers use under typical household ventilation. Covers use at ambient temperatures. |
| ing, impregnation and care products Polishes, wax / | Covers use in room size of 25 m3 Covers use under typical household ventilation. Covers use at ambient temperatures. |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

| | covers use up to 1 day/year |
|---|--|
| | covers use up to 1 day/year Covers use up to 1 times/day of use |
| | |
| | Covers exposure up to 2,2 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in room size of 20 m3 |
| | Covers use under typical household ventilation. |
| | Covers use at ambient temperatures. |
| Polishes and wax blends | Covers concentrations up to 10 % |
| Polishes, wax / cream | |
| (floor, furniture, shoes). | |
| | For each use event, covers amount up to 550 g |
| | covers use up to 1 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 4 hours/event |
| | covers skin contact area up to (cm2): 430 cm2 |
| | Covers use in room size of 58 m3 |
| | Covers use under typical household ventilation. |
| | Covers use at ambient temperatures. |
| Polymer preparations and compounds | Covers concentrations up to 5 % |
| | For each use event, covers amount up to 825 g |
| | covers use up to 0,2 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 0,5 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in room size of 58 m3 |
| | Covers use under typical household ventilation. |
| | Covers use at ambient temperatures. |
| Textile dyes, finishing and impregnating products; including bleaches and other processing aids | Covers concentrations up to 10 % |
| · · · · · · · · · · · · · · · · · · · | For each use event, covers amount up to 1.250 g |
| | covers use up to 1 day/year |
| | Covers use up to 1 times/day of use |
| | Covers exposure up to 2,2 hours/event |
| | covers skin contact area up to (cm2): 1.900 cm2 |
| | Covers use in room size of 20 m3 |
| | Covers use under typical household ventilation. |
| | Covers use at ambient temperatures. |
| | - Colored Colored Composition Composition Colored Colo |

| Section 2.2 | Control of Environmental Exposure |
|-------------|-----------------------------------|
|-------------|-----------------------------------|

| SECTION 3 EXPOSURE ESTIMATION | |
|---------------------------------------|---|
| Section 3.1 - Health | |
| The ECETOC TRA tool has be indicated. | been used to estimate consumer exposures unless otherwise |

| Section 3.2 -Environment | |
|--|--|
| No exposure assessment presented for the environment | |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Consumer

| 30000001090 | |
|------------------|---|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Use in Cleaning Agents - Consumer |
| Use Descriptor | Sector of Use: SU 21 Product Categories: PC3, PC35 Environmental Release Categories: ERC8a, ERC8d |
| Scope of process | Covers general exposures to consumers arising from the use of household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products. |

| | 1 | |
|--|---|--------------------------|
| SECTION 2 | OPERATIONAL CONDITIONS AI MEASURES | ND RISK MANAGEMENT |
| Additional Information | No exposure assessment presente | ed for the environment. |
| Section 2.1 | Control of Consumer Exposure | |
| Product Characteristics | | |
| Physical form of product | Liquid, vapour pressure > 10 Pa a | t STP |
| Frequency and Duration of | f Use | |
| Unless stated otherwise. | | |
| Covers use up to (days/year |): | 365 |
| Unless otherwise stated. | | |
| covers use up to (times/day | | 4 |
| Covers exposure up to (hour | rs/event): | 8 |
| Other Operational Condition | ons affecting Exposure | |
| Unless stated otherwise. | | |
| Covers use at ambient temp | eratures. | |
| Covers use in room size of 2 | 20m3 | |
| Covers use under typical ho | usehold ventilation. | |
| Product Categories | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES | |
| Air care products Air care, instant action (aerosol sprays). | Unless stated otherwise. Covers of | concentrations up to 1 % |
| | covers use up to 365 day/year | |
| | Covers use up to 4 times/day of u | ise |
| | For each use event, covers amount | |
| | Covers use under typical househo | |
| | Covers use in room size of 20m3 | |
| | for each use event Covers exposu | |
| Air care products Air care, | Unless stated otherwise. Covers of | oncentrations up to 1 % |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

| continuous action (solid and liquid). | |
|---------------------------------------|---|
| iiquiu). | covers use up to 364 day/year |
| | covers use up to 1 times/day of use |
| | covers skin contact area up to (cm2): 35,70 cm2 |
| | For each use event, covers amount up to 0,48 g |
| | Covers use under typical household ventilation. |
| | Covers use in room size of 20m3 |
| | for each use event Covers exposure up to 8,00 hours/event |
| Washing and cleaning | Unless stated otherwise. Covers concentrations up to 5 % |
| products (including solvent | |
| based products) Laundry | |
| and dish washing products. | |
| • | covers use up to 364 day/year |
| | Covers use up to 1 times/day of use |
| | covers skin contact area up to (cm2): 857,50 |
| | For each use event, covers amount up to 15 g |
| | Covers use under typical household ventilation. |
| | Covers use in room size of 20m3 |
| | for each use event Covers exposure up to 0,5 hours/event |
| Washing and cleaning | Unless stated otherwise. Covers concentrations up to 20 % |
| products (including solvent | · |
| based products) Cleaners, | |
| liquids (all purpose clean- | |
| ers, sanitary products, floor | |
| cleaners, glass cleaners, | |
| carpet cleaners, metal | |
| cleaners). | |
| | covers use up to 364 day/year |
| | Covers use up to 1 times/day of use |
| | covers skin contact area up to (cm2): 857,50 cm2 |
| | for each use event, covers amount up to (g): 27 g |
| | Covers use under typical household ventilation. |
| | Covers use in room size of 20m3 |
| | for each use event Covers exposure up to 0,33 hours/event |
| Washing and cleaning | Unless stated otherwise. Covers concentrations up to 15 % |
| products (including solvent | |
| based products) Cleaners, | |
| trigger sprays (all purpose | |
| cleaners, sanitary products, | |
| glass cleaners). | |
| | covers use up to 364 day/year |
| | Covers use up to 1 times/day of use |
| | covers skin contact area up to (cm2): 428,00 cm2 |
| | For each use event, covers amount up to 35 g |
| | Covers use under typical household ventilation. |
| | Covers use in room size of 20m3 |
| | for each use event Covers exposure up to 0,17 hours/event |

| Section 2.2 | Control of Environmental Exposure |
|-------------|-----------------------------------|
|-------------|-----------------------------------|

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| SECTION 3 | EXPOSURE ESTIMATION |
|------------------------|---------------------|
| Section 3.1 - Health | |
| EGRET Consumer Tool V2 | |

Section 3.2 -Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|--|---|
| Section 4.1 - Health | |
| Measures/Operational Condit Where other Risk Manageme | expected to exceed the DN(M)EL when the Risk Management cions outlined in Section 2 are implemented. ent Measures/Operational Conditions are adopted, then users managed to at least equivalent levels. |

Section 4.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Consumer

| Exposure occinance | |
|--------------------|---|
| 30000001092 | |
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | De-icing and anti-icing applications - Consumer |
| Use Descriptor | Sector of Use: SU 21 Product Categories: PC4 |
| | Environmental Release Categories: ERC8d |
| Scope of process | De-icing of vehicles and similar equipment by spraying. |

| SECTION 2 | OPERATIONAL CONDITIONS A MEASURES | ND RISK MANAGEMENT |
|--|---------------------------------------|-------------------------------|
| Additional Information | No exposure assessment present | ed for the environment. |
| Section 2.1 | Control of Consumer Exposure | |
| Product Characteristics | • | |
| Physical form of product | Liquid, vapour pressure > 10 Pa a | t STP |
| Concentration of the Substance in Mixture/Article | Covers concentration up to (%): 100 % | |
| Amounts Used | | |
| for each use event, covers a | mount up to (g): | 5.000 |
| Frequency and Duration of | | 1 |
| Covers use up to (days/year | | 365 |
| Exposure (hours/event): | | 4 |
| Product Categories | OPERATIONAL CONDITIONS A MEASURES | ND RISK MANAGEMENT |
| Anti-Freeze and de-icing products Washing car window. | Covers concentrations up to 100 | % |
| | For each use event, covers amou | nt up to 33 g |
| | covers use up to 365 day/year | |
| | Covers use up to 1 times/day of u | |
| | Covers exposure up to 4 hours/e | |
| | covers skin contact area up to (cn | |
| | Covers use in room size of 58 m3 | |
| | Covers use under typical househo | |
| | Covers use at ambient temperature | |
| Anti-Freeze and de-icing products Pouring into radiator. | Covers concentrations up to 45 % | 6 |
| | For each use event, covers amou | nt up to 5.000 g |
| | covers use up to 1 day/year | |
| | Covers use up to 1 times/day of u | ıse |
| | Covers exposure up to 0,25 hour | |
| | covers skin contact area up to (cn | n2): 960 cm2 |
| | Covers use in a one car garage (3 | 34 m3) under typical ventila- |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

| tion. |
|-------------------------------------|
| Covers use at ambient temperatures. |

| SECTION 3 | EXPOSURE ESTIMATION |
|----------------------|---------------------|
| Section 3.1 - Health | |

The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise indicated.

Section 3.2 - Environment

No exposure assessment presented for the environment.

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE |
|-----------|---------------------------------------|
| | EXPOSURE SCENARIO |
| | |

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Consumer

| 30000001093 | TOUTION TO THE PARTY OF THE PAR |
|------------------|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Other Consumer Uses - Consumer |
| Use Descriptor | Sector of Use: SU 21 Product Categories: PC28, PC39 Environmental Release Categories: ERC8a, ERC8d |
| Scope of process | Consumer uses e.g. as a carrier in cosmetics/personal care products, perfumes and fragrances. Note: For cosmetic and personal care products, risk assessment only required for the environment under REACH as human health is covered by alternative legislation. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |
|--------------------------------|---|
| Additional Information | No exposure assessment presented for human health. |
| | No exposure assessment presented for the environment. |
| Section 2.1 | Control of Consumer Exposure |
| Product Characteristics | • |
| Product Categories | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES |

| SECTION 3 | EXPOSURE ESTIMATION |
|--|---------------------|
| Section 3.1 - Health | |
| No exposure assessment presented for human health. | |

Section 3.2 - Environment

| SECTION 4 | GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO |
|--|---|
| Section 4.1 - Health | |
| No exposure assessment presented for human health. | |

| Section 4.2 -Environment | |
|---|--|
| No exposure assessment presented for the environment. | |

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

Exposure Scenario - Consumer

| 300000010119 | |
|------------------|--|
| SECTION 1 | EXPOSURE SCENARIO TITLE |
| Title | Use as a fuel - Consumer |
| Use Descriptor | Sector of Use: SU 21 Product Categories: PC13 Environmental Release Categories: ERC9a, ERC9b |
| Scope of process | Covers consumer uses in liquid fuels. |

| SECTION 2 | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES | |
|---|---|------------------|
| Additional Information | No exposure assessment presented for the environment. | |
| Section 2.1 | Control of Consumer Exposure | |
| Product Characteristics | | |
| Physical form of product | Liquid, vapour pressure > 10 Pa at STP | |
| Concentration of the Substance in Mixture/Article | Covers concentration up to (%): 100 % | |
| Amounts Used | • | |
| for each use event, covers a | mount up to (g): | 220 |
| Frequency and Duration of | Use | |
| Covers use up to (days/year |): | 52 |
| Covers exposure up to (hour | rs/event): | 5 |
| Product Categories | OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES | |
| Fuels Liquid: Lamp oil. | Covers use under typical household ven | tilation. |
| | Covers concentrations up to 100 % | |
| | covers use up to 52 day/year | |
| | Covers use up to 1 times/day of use | |
| | covers skin contact area up to (cm2): 210 cm2 | |
| | For each use event, covers amount up to 220 g | |
| | Covers use in room size of 20m3 | |
| | for each use event Covers exposure up | to 5 hours/event |

| Section 2.2 | Control of Environmental Exposure |
|-------------|-----------------------------------|
|-------------|-----------------------------------|

| SECTION 3 | EXPOSURE ESTIMATION | |
|--|---------------------|--|
| Section 3.1 - Health | | |
| The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise indicated. | | |

Section 3.2 - Environment

According to EC No 1907/2006 as amended as at the date of this SDS

Diethylene Glycol

Version Revision Date: SDS Number: Date of last issue: 30.07.2024

3.3 12.02.2025 800001033914 Print Date 19.02.2025

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment