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Dipropylene glycol (DPG)

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

1.1 Product identifier

Trade name : Dipropylene glycol (DPG)

Product code : U1521

Registration number EU : 01-2119456811-38-0002

CAS-No. : 25265-71-8

Other means of identification : DPG; Oxydipropanol

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

Use of the Sub: : Please refer to section 16 and/or the annexes for the regis-

stance/Mixture tered uses under REACH.

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 : sccmsds@shell.com

Sheet

1.4 Emergency telephone number

SHELL +44 (0) 1235 239 670 (This telephone number is available 24 hours per day, 7 days per week)

Poison Centers (CAV) eligible for access to information for health emergency response: CAV Osp. Bambin Gesù Roma 06 68593726; CAV Policlinico "Umberto I" Roma 06-

49978000;

CAV Policlinico "A. Gemelli" Roma 06 3054343; CAV Milano 02 66101029; CAV Bergamo 800883300;

CAV Pavia 0382 24444; CAV Verona 800011858; CAV Firenze 055 7947819; CAV Napoli 081 5453333;

CAV Foggia 800183459.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Based on available data this substance / mixture does not meet the classification criteria.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms : No Hazard Symbol required

Signal word : No signal word

Hazard statements : PHYSICAL HAZARDS:

Not classified as a physical hazard according to CLP

criteria.

HEALTH HAZARDS:

Not classified as a health hazard under CLP criteria.

ENVIRONMENTAL HAZARDS:

Not classified as environmental hazard according to

CLP criteria.

Precautionary statements : Prevention:

No precautionary phrases.

Response:

No precautionary phrases.

Storage:

No precautionary phrases.

Disposal:

No precautionary phrases.

2.3 Other hazards

The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

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.

Not classified as flammable but will burn.

SECTION 3: Composition/information on ingredients

3.1 Substances

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)
Dipropylene glycol	25265-71-8 246-770-3	<= 100

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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 : In general no treatment is necessary unless large quantities

are swallowed, however, get medical advice.

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.

No specific hazards under normal use conditions.

Eye irritation signs and symptoms may include a burning sen-

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

No specific hazards under normal use conditions.

Ingestion may result in nausea, vomiting and/or diarrhoea.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Call a doctor or poison control center for guidance.

Treat symptomatically. Following cases of gross overexposure, investigation of liver, kidney and eye function may be advisable. Records of such incidents should be maintained

for future reference.

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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 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.

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> Use appropriate containment to avoid environmental contamination.

Ventilate contaminated area thoroughly.

6.3 Methods and material for containment and cleaning up

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

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

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.

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

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.

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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

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

Biological occupational exposure limits

No biological limit allocated.

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

Remarks: not required	
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Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value	
Remarks:	Exposure assessments have not been presented for the environment		
	therefore PNEC values not required.		

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8.2 Exposure controls

Engineering measures

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

Adequate ventilation to control airborne concentrations.

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:

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

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. Incidental contact/Splash protection: PVC, neoprene or nitrile 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 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

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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. Application of a non-perfumed moisturizer is recommended.

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

work clothes.

It is good practice to wear chemical resistant gloves.

Respiratory protection : No respiratory protection is ordinarily required under normal

conditions of use.

In accordance with good industrial hygiene practices, precau-

tions should be taken to avoid breathing of material.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Liquid.

Colour : colourless

Odour : odourless

Odour Threshold : Data not available

Melting / freezing point : -20 °C

Boiling point/boiling range : 227 °C

Flammability

Flammability (solid, gas) : Not applicable

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit / upper flammability limit

: 12,6 %(V)

Lower explosion limit /

Lower flammability limit

2,9 %(V)

Flash point : 130 °C

Method: ASTM D-93 / PMCC

Auto-ignition temperature : 327 - 337 °C

Decomposition temperature

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Decomposition tempera-

ture

Data not available

pH : 7

Viscosity

Viscosity, dynamic : 116 mPa.s (25 °C)

Method: ASTM D445

Viscosity, kinematic : 118 mm2/s (20 °C)

Method: ASTM D445

32 mm2/s (40 °C) Method: ASTM D445

Solubility(ies)

Water solubility : Completely miscible.

Partition coefficient: n-

octanol/water

: log Pow: -0,462 (21,7 °C)

Vapour pressure : 1,3 Pa (25 °C)

Relative density : 1,023

Method: ASTM D4052

Density : 1,03 g/cm3 (20 °C)

Method: ASTM D4052

Relative vapour density : 4,6 (20 °C)

Particle characteristics

Particle size : Data not available

9.2 Other information

Explosives : Not applicable

Oxidizing properties : Data not available

Evaporation rate : Data not available

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 : 71,4 mN/m, 22 °C

Molecular weight : 134,2 g/mol

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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.

Carbonyl and dioxolane derivatives may be formed.

SECTION 11: Toxicological information

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

Information on likely routes of : Skin and eye contact are the primary routes of exposure alt-

exposure hough exposure may occur following accidental ingestion.

Acute toxicity

Product:

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

Method: US EPA Test Guideline OPP 81-1

Remarks: Based on available data, the classification criteria

are not met.

Acute inhalation toxicity : LC 50 (Rat, male and female): > 2,34 mg/l

Exposure time: 4 h

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Test atmosphere: Aerosol Method: Other guideline method.

Remarks: Based on available data, the classification criteria

are not met.

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

Method: Other guideline method.

Remarks: Based on available data, the classification criteria

are not met.

Components:

Dipropylene glycol:

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

Method: US EPA Test Guideline OPP 81-1

Remarks: Based on available data, the classification criteria

are not met.

Acute inhalation toxicity : LC 50 (Rat, male and female): > 2,34 mg/l

Exposure time: 4 h
Test atmosphere: Aerosol
Method: Other guideline method.

Remarks: Based on available data, the classification criteria

are not met.

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

Method: Other guideline method.

Remarks: Based on available data, the classification criteria

are not met.

Skin corrosion/irritation

Product:

Species : Rabbit

Method : Other guideline method.

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

Components:

Dipropylene glycol:

Species : Rabbit

Method : Other guideline method.

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

Serious eye damage/eye irritation

Product:

Species : Rabbit

Method : Other guideline method.

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

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Components:

Dipropylene glycol:

Species : Rabbit

Method : Other guideline method.

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

Respiratory or skin sensitisation

Product:

Species : Guinea pig

Method : Other guideline method.

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

Components:

Dipropylene glycol:

Species : Guinea pig

Method : Other guideline method.

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

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Method: Acceptable non-standard method.

Remarks: Based on available data, the classification criteria

are not met.

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

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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.

Components:

Dipropylene glycol:

Genotoxicity in vitro : Method: Acceptable non-standard method.

Remarks: Based on available data, the classification criteria

are not met.

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

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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

Product:

Species : Mouse, male and female

Application Route : Oral

Method : Acceptable non-standard method.

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

Carcinogenicity - Assess-

ment

This product does not meet the criteria for classification in

categories 1A/1B.

Components:

Dipropylene glycol:

Species : Mouse, male and female

Application Route : Oral

Method : Acceptable non-standard method.

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

Carcinogenicity - Assess-

ment

This product does not meet the criteria for classification in

categories 1A/1B.

Material	GHS/CLP Carcinogenicity Classification
Dipropylene glycol	No carcinogenicity classification.

Reproductive toxicity

Product:

Effects on fertility : Species: Mouse

Sex: male and female Application Route: Oral

Method: Literature data

Remarks: Based on available data, the classification criteria

are not met.

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Reproductive toxicity - As-

sessment

: This product does not meet the criteria for classification in

categories 1A/1B.

Components:

Dipropylene glycol:

Effects on fertility : Species: Mouse

Sex: male and female Application Route: Oral

Method: Literature data

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

Product:

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

Components:

Dipropylene glycol:

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

STOT - repeated exposure

Product:

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

Components:

Dipropylene glycol:

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

Repeated dose toxicity

Product:

Species : Rat, male and female

Application Route : Oral

Method : Acceptable non-standard method.
Target Organs : No specific target organs noted

Components:

Dipropylene glycol:

Species : Rat, male and female

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Application Route : Oral

Method : Acceptable non-standard method.

Target Organs : No specific target organs noted

Aspiration toxicity

Product:

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

Components:

Dipropylene 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 : Classifications by other authorities under varying regulatory

frameworks may exist.

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

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

ponent(s).

Components:

Dipropylene glycol:

Remarks : Classifications by other authorities under varying regulatory

frameworks may exist.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): > 1.000 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

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Remarks: Practically non toxic:

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: OECD Test Guideline 202 Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201 Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic tox-

icity)

Chronic Toxicity Value: 1.340 mg/l

Exposure time: 30 d

Method: Based on quantitative structure-activity relationship

(QSAR) modelling

Remarks: NOEC/NOEL > 100 mg/l

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

Chronic Toxicity Value: 466 mg/l

Exposure time: 16 d

Species: Daphnia (water flea)

Method: Based on quantitative structure-activity relationship

(QSAR) modelling

Remarks: NOEC/NOEL > 1.0 - <= 10 mg/l

Toxicity to microorganisms : EC10 (Pseudomonas putida): >= 1.000 mg/l

Exposure time: 18 h

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

Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

Components:

Dipropylene glycol:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): > 1.000 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203 Remarks: Practically non toxic: 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: OECD Test Guideline 202 Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

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Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to microorganisms : EC10 (Pseudomonas putida): >= 1.000 mg/l

Exposure time: 18 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)

Chronic Toxicity Value: 1.340 mg/l

Exposure time: 30 d

Method: Based on quantitative structure-activity relationship

(QSAR) modelling

Remarks: NOEC/NOEL > 100 mg/l

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

Chronic Toxicity Value: 466 mg/l Exposure time: 16 d

Species: Daphnia (water flea)

Method: Based on quantitative structure-activity relationship

(QSAR) modelling

Remarks: NOEC/NOEL > 1.0 - <= 10 mg/l

12.2 Persistence and degradability

Product:

Biodegradability : Biodegradation: 84,4 %

Exposure time: 28 d

Method: OECD Test Guideline 301F Remarks: Readily biodegradable.

Components:

Dipropylene glycol:

Biodegradability : Biodegradation: 84,4 %

Exposure time: 28 d

Method: OECD Test Guideline 301F Remarks: Readily biodegradable.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Species: Cyprinus carpio (Carp)

Exposure time: 42 d

Bioconcentration factor (BCF): 0,3 - 4,6 Method: OECD Test Guideline 305C Remarks: Does not bioaccumulate significantly.

Remarks. Does not broaceumurate significanti

Components:

Dipropylene glycol:

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Bioaccumulation : Species: Cyprinus carpio (Carp)

Exposure time: 42 d

Bioconcentration factor (BCF): 0,3 - 4,6 Method: OECD Test Guideline 305C Remarks: Does not bioaccumulate significantly.

12.4 Mobility in soil

Product:

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

will or may be mobile and may contaminate groundwater.

Components:

Dipropylene glycol:

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

will or may be mobile and may contaminate groundwater.

12.5 Results of PBT and vPvB assessment

Product:

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..

Components:

Dipropylene 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).

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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 na-

tional 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.

Local legislation

Remarks : For the disposal of waste arising from the product, including

empty containers not cleared, follow the Legislative Decree

152/06 and subsequent amendments.

SECTION 14: Transport information

14.1 UN number or ID number

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

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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

: Not regulated as a dangerous good

14.3 Transport hazard class(es)

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

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

: Not regulated as a dangerous good

14.5 Environmental hazards

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 : Dipropylene glycol

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

Nitrogen is an odourless and invisible gas. Exposure to nitrogen 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

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-

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

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.

Safeguard of health and safety in the workplaces refer to D.Lgs.81/2008 and subsequent amendments.

For waste disposal refer to D.Lgs.152/2006 and subsequent amendments.

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

AIIC : Listed

DSL : Listed

IECSC : Listed

ENCS : Listed

KECI : Listed

NZIoC : Listed

PICCS : Listed

TSCA : Listed

TCSI : Listed

15.2 Chemical safety assessment

A Chemical Safety Assessment was performed for all substances of this product.

SECTION 16: Other information

Full text of other abbreviations

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 -

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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; 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 : This product is not classified for human health or environmen-

tal hazards. An exposure scenario is not required.

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.

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).

Identified Uses according to the Use Descriptor System Uses - Worker

Title : - Industrial

Manufacture of substance Distribution of substance Use as an intermediate

Formulation & (re)packing of substances and mixtures

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Use in Cleaning Agents

Lubricants

Use in metal working fluids/rolling oils

Use in coatings

Water treatment chemicals

Uses - Worker

Title : - Professional

Use in Cleaning Agents

Use in metal working fluids/rolling oils

Use in functional fluids Use in laboratories

Water treatment chemicals

Use in coatings

Uses - Consumer

Title : - Consumer

Use in Cleaning Agents

Use in coatings

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.

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