

SAFETY DATA SHEET

Propylene Glycol

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

1.1. Product identifier

Trade name

Propylene Glycol

Other names / Synonyms

Propaan-1,2-diol, 1,2 Propanediol

Product no.

369000000, 369WORLD, 3695991

REACH registration number

01-2119456809-23-XXXX

Other means of identification

EC No.: 200-338-0

CAS No.: 57-55-6

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

Relevant identified uses of the substance or mixture

Stabilizer.

Restricted to professional users.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Greenfield Global LFS Ireland Ltd.,

IDA Business & Technology Park,

Mountrath Road,

Portlaoise,

Co. Laois,

Ireland

+353 057 867 1400

E-mail

exports@greenfield.com

Revision

02/01/2024

SDS Version

1.0

1.4. Emergency telephone number

The National Poisons Information Centre (NPIC)

Public: +353 (0) 1 809 2166 (7 days a week, 8am- 10pm)

Healthcare professionals: +353 (0) 1 809 2566 (24 h service)

See also section 4 "First aid measures"

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified according to Regulation (EC) No. 1272/2008 (CLP).

2.2. Label elements

Hazard pictogram(s)

Not applicable.

Signal word

Not applicable.

Hazard statement(s)

Not applicable.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Precautionary statement(s)

General

-

Prevention

-

Response

-

Storage

-

Disposal

-

Hazardous substances

None known.

Additional labelling

EUH210, Safety data sheet available on request.

2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product/substance	Identifiers	% w/w	Classification	Note
Propane-1,2-diol	CAS No.: 57-55-6 EC No.: 200-338-0 REACH: 01-2119456809-23-XXXX Index No.:	95-100%		

3.2. Mixtures

Not applicable. This product is a substance.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

-

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

In case of discomfort: bring the person into fresh air.

Skin contact

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

Eye contact

If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) and continue until irritation stops. Remove contact lenses.

Ingestion

Rinse and flush mouth thoroughly and consume large quantities of water. In case of continued discomfort: seek medical assistance and bring this safety data sheet.

Burns

Not applicable.

4.2. Most important symptoms and effects, both acute and delayed

None known.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO₂)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the National Poisons Information Centre (NPIC) on +353 (0) 1 809 256 (24 h service) in order to obtain further advice.

Fire fighters should wear appropriate personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

Store in tightly closed original container in a dry, cool and well-ventilated place.

Incompatible materials

Strong oxidizing agents

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Propane-1,2-diol

Long term exposure limit (8 hours) (mg/m³): 470 (total (vapour and particulates)) / 10(particulates)

Long term exposure limit (8 hours) (ppm): 150 (total (vapour and particulates))

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

2021 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019).

DNEL

Propane-1,2-diol

Duration:	Route of exposure:	DNEL:
Long term – Local effects - General population	Inhalation	10 mg/m ³
Long term – Local effects - Workers	Inhalation	10 mg/m ³
Long term – Systemic effects - General population	Inhalation	50 mg/m ³
Long term – Systemic effects - Workers	Inhalation	168 mg/m ³

PNEC

Propane-1,2-diol

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		260 mg/L
Freshwater sediment		572 mg/kg
Intermittent release (freshwater)		183 mg/L
Marine water		26 mg/L
Marine water sediment		57.2 mg/kg
Sewage treatment plant		20 g/L
Soil		50 mg/kg

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

Wash hands after use.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment


Generally

Use only CE marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge			N/A

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Type	Class	Colour	Standards
do not give adequate protection.			
Skin protection			
No specific requirements.			
Hand protection			
No specific requirements.			
Eye protection			
Type	Standards		
Wear safety goggles with protective side shields in accordance with standard EN166.	EN 166		

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Colourless

Odour / Odour threshold

Testing not relevant or not possible due to the nature of the product.

pH

Testing not relevant or not possible due to the nature of the product.

Density (g/cm³)

1.036 (25 °C)

Kinematic viscosity

Testing not relevant or not possible due to the nature of the product.

Particle characteristics

Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)

Testing not relevant or not possible due to the nature of the product.

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

Boiling point (°C)

210

Vapour pressure

0.106 millibar (20 °C)

Relative vapour density

Testing not relevant or not possible due to the nature of the product.

Decomposition temperature (°C)

165

Data on fire and explosion hazards

Flash point (°C)

99

Flammability (°C)

Testing not relevant or not possible due to the nature of the product.

Auto-ignition temperature (°C)

371

Lower and upper explosion limit (% v/v)

2.6 - 12.5

Solubility

Solubility in water

Completely soluble

n-octanol/water coefficient (LogKow)

Testing not relevant or not possible due to the nature of the product.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Other physical and chemical parameters

No data available.

Oxidizing properties

Testing not relevant or not possible due to the nature of the product.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

Sunlight

Avoid extremes of temperature.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	Propane-1,2-diol
Species:	Rat
Route of exposure:	Oral
Result:	22000 mg/kg

Product/substance	Propane-1,2-diol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	>2000 mg/kg

Product/substance	Propane-1,2-diol
Species:	Rabbit
Route of exposure:	Inhalation
Test:	LC50 (2 hours)
Result:	>317 mg/L

Skin corrosion/irritation

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

Serious eye damage/irritation

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

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT-single exposure

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

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

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

Long term effects

None known.

Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	Propane-1,2-diol
Species:	Fish, <i>Oncorhynchus mykiss</i>
Duration:	96 hours
Test:	LC50
Result:	40613 mg/L

Product/substance	Propane-1,2-diol
Species:	Daphnia, <i>Ceriodaphnia dubia</i>
Duration:	48 hours
Test:	EC50
Result:	18340 mg/L

Product/substance	Propane-1,2-diol
Species:	Algae, <i>Pseudokirchneriella subcapitata</i>
Duration:	96 hours
Test:	EC50
Result:	19000 mg/L

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Product/substance	Propane-1,2-diol
Potential bioaccumulation:	No data available.
LogKow:	-0.92
BCF:	No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is not covered by regulations on dangerous waste.
Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

Not applicable.

Additional information

Not applicable.

Sources

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

Not applicable.

The safety data sheet is validated by

EcoOnline

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: IE-en