

MATERIAL SAFETY DATA SHEET

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

1.1 Product identifier:

Synonyms: propane-1,2-diol (REACH);
1,2-propanediol (IUPAC)
Index number: not applicable
EC number: 200-338-0
REACH registration number: 01-2119456809-23-XXXX
CAS number: 57-55-6

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

1.2.1 Identified uses:

according to article 14.4. and section 3 of Annex XI to Regulation No. 1907/2006/EC, exposure scenarios are not required. Therefore, no detailed information on use is available.

1.2.2 Uses advised against: not specified.

1.3 Details of the supplier of the safety data sheet:

ISOLATECH e.K.
Hans-Böckler-Str.38a, 40764 Langenfeld
Tel. +4921738930621
Telefax: +4921738930622

E-mail address for a competent person responsible for the safety data sheet:

info@isolatech.de

1.4 Emergency telephone number:

please call national emergency number: 112

1.5 Update info:

Date of compilation: 21.03.2023
Date of the update: 31.03.2025
Version: 1

SECTION 2. Hazards identification.

2.1 Classification of the substance or mixture:

Product does not meet the criteria for classification according to the CLP 1272/2008.

2.2 Label elements:

Hazard pictogram(s): none
Signal word: none
Hazard statement(s): none
Precautionary statement(s): none

2.3 Other hazards:

PBT or vPvB criteria: substance does not meet the criteria of PBT or vPvB.

Endocrine disrupting properties:

the product does not contain substances above the legally permissible limits contained in the list drawn up in accordance with Art. 59 sec. 1 of Regulation

(EC) No. 1907/2006 for having endocrine disrupting properties or which would be identified as having endocrine disrupting properties 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 Substance: Substance: propylene glycol
Mass fraction: min. 99,5%
CAS No.: 57-55-6
EC number: 200-338-0
Index number: none
REACH registration number: 01-2119456809-23-XXXX
Chemical formula: C₃H₈O₂
Molecular weight: 76,10 g/mol
Classification: not classified

A substance for which Community workplace exposure limits have not been established.

3.2 Mixture: not applicable.

SECTION 4. First aid measures.

4.1 Description of first aid measures:

General information: in case of any doubt or if symptoms get worse, seek medical attention.
a) Inhalation: take the victim to fresh air and provide him/her conditions for free breathing. If there is no breathing, irregular breathing or if breathing has stopped, call for medical help immediately.
b) Contact with eyes: rinse eyes carefully with water for several minutes. Avoid a strong stream of water due to the risk of mechanical damage to the cornea. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists call a doctor immediately.
c) Contact with skin: take off contaminated clothes. Rinse skin with water/shower. You can use a soap. If irritation occurs call a doctor immediately
d) Ingestion: do not induce vomiting. If the person is conscious, rinse mouth with water. Get medical help immediately.

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

Eyes: slight irritation, redness;
Skin: with constant exposure/contact: skin redness, skin dryness, slight irritation;
Inhalation: with constant exposure/contact: dryness, sore throat;
Swallowing: after swallowing large amounts: nausea, abdominal pain.

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

Symptomatic treatment. No additional information.

SECTION 5. Firefighting measures.

5.1 Extinguishing media:

Suitable extinguishing media: AFFF foam, BC powder, carbon dioxide, dry sand, dry estinguish powder, water diffused currents. Adapt extinguishing agents to the environment.

Unsuitable extinguishing media: solid stream of water.

5.2 Special hazards arising from the substance or mixture:

Combustible substance.

Forms explosive mixtures on intense heating with air.
Development of hazardous gases or vapors possible in the event of fire: carbon monoxide and carbon dioxide. May polymerize at elevated temperatures.

5.3 Advice for firefighters:

do not stay in the danger zone without breathing apparatus. Avoid contact of the product with the skin of the hazardous agent, keep a safe distance and wear protective clothing. Do not allow extinguishing agents to get into groundwater and surface. Collect extinguishing agents separately, do not pour out to the sewer.

SECTION 6. Accidental release measures.

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

notify about the accident. Remove from danger area all persons not involved in the emergency response. If necessary, order the evacuation. Avoid contact of the product with skin and eyes. Avoid breathing vapors/mist. Provide effective ventilation to avoid the accumulation of vapors.

6.1.2 For emergency responders:

do not take any action without proper protective equipment. Use protective equipment (see section 8). Avoid breathing vapors/mist. If necessary, order the evacuation.

6.2 Environmental precautions:

stop the leak as soon as possible with the participation of trained personnel. Protect grates and drains against substances penetration. Ventilate the room where the spill occurred to disperse the vapors. Proceed with caution to avoid water pollution.

6.3 Methods and material for containment and cleaning up:

remove unprotected persons from the endangered area. Secure drains. Avoid direct contact with the product. Avoid breathing vapours. If possible, secure against further outflow of the substance. Place damaged packaging in replacement packaging. Collect the spilled product with binding material (e.g. sand). Hand over to an authorized waste recipient.

6.4 Reference to other sections: for personal protection: see section 8.

in the case of waste management: see section 13.

SECTION 7. Handling and storage.

7.1 Precautions for safe handling:

7.1.1. Recommendations: a) wear protective clothing in accordance with section 8 of this safety data sheet. Avoid release to the environment;

b) prevent use where there is a possibility of contact with the substances or incompatible mixtures;

c) draw attention to activities and conditions which, by changing the properties of the mixture, create new hazards, and introduce them for appropriate remedial measures;

d) limit the release of the mixture into the environment, e.g. by preventing releases or from entering drains.

7.1.2. Recommendations for general occupational hygiene:

a) do not eat, drink or smoke in the workplace;

b) wash your hands after use;

- c) remove contaminated clothing and protective equipment before entering eating areas;
- d) do not breathe vapours/spray.

7.2 *Conditions for safe storage, including any incompatibilities:*

store in dry, well-ventilated place, well protected from weather conditions.

Recommended storage temperature: lower than +40°C.

Incompatible materials: oxidizing agents, reducing agents, strong acids, water/moisture.

7.3 *Specific end use(s):* no additional information.

SECTION 8. Exposure controls/personal protection.

8.1 *Control parameters:*

Poland: TWA: 100 mg/m³ (propane-1,2-diol - vapors and inhalable fraction)
 STEL: not specified
 MLV: not specified

Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment.

EC: Long-term Exposure Limit (LTEL) Values: not specified
 Short-term Exposure Limit (STEL) Values: not specified

Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC (Text with EEA relevance).

DNEL values:

DNEL (employees):

Long-term exposure - systemic effects, inhalation: 168 mg/m³

Long-term exposure - local effects, inhalation: 10 mg/m³

DNEL (population):

Long-term exposure - systemic effects, inhalation: 50 mg/m³

Long-term exposure - systemic effects, dermal: 213 mg/kg m.c/dzień

Long-term exposure - systemic effects, oral: 85 mg/kg m.c/dzień

Long-term exposure - local effects, inhalation: 10 mg/m³

PNEC values:

Water (fresh water): 260 mg/l

Water (sea water): 26 mg/l

Water (intermittent release): 183 mg/l

Sediment (freshwater): 572 mg/kg dry weight of sediment

Sediment (sea water): 57,2 mg/kg dry weight of sediment

Soil: 50 mg/kg dry weight of soil

Sewage treatment plant: 20 000 mg/l

8.2 *Exposure controls:*

8.2.1 *Appropriate engineering controls:*

provide general ventilation in places where it is necessary.

8.2.2. *Individual protection measures, such as personal protective equipment*

a) Eyes protection: goggles or face shield. Eye protection should meet the standards set out in EN 166.

b) Hands and skin protection:

-hands protection: protective gloves

- other: protective clothes and shoes.
- c) Respiratory protection: in case of insufficient ventilation, wear suitable breathing apparatus.
- d) Thermal hazard: no protection required, the product does not pose a thermal hazard.

8.2.3. *Environmental exposure controls*: do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9. Physical and chemical properties.

9.1 Information on basic physical and chemical properties:

- a) Physical state: liquid
- b) Colour: colorless
- c) Odour: almost odorless
- d) Melting point/freezing point: melting point: <-20°C EU method;
freezing point: <-20°C Method A2, acc. to EC;
pour point: <-57°C (literature data)
- e) Boiling point or initial boiling point and boiling range: 184°C (1013hPa)
- f) Flammability: not flammable
- g) Lower and upper explosion limit:
Upper: 12,5 % (V) estimated
Lower: 12,5% (V) estimated
- h) Flash point: 104°C (100,01 kPa)
- i) Decomposition temperature: no data available
- j) pH: 4-7 (20°C)
- k) Kinematic viscosity: no data available
- l) Solubility: in water: miscible with water
- m) Partition coefficient n-octanol/water (log value): Log Kow (Log Pow): -1,07
(20,5°C; pH:6,2-6,4).
- n) Vapour pressure: 0,2hPa (25°C)
- o) Density and/or relative density: ~1,03 g/cm³ (20°C)
- p) Relative vapour density: no data available
- q) Particle characteristics: not applicable

9.2 Other information:

9.2.1 *Information with regard to physical hazard classes*: -

9.2.2 *Other safety characteristics*:

- a) Explosive properties: product is not explosive.
- b) Oxidizing characteristics: product is not oxidizing.

SECTION 10. Stability and reactivity.

10.1 *Reactivity*: no reactive during storage, use and application in normal conditions.
Temperature above flash point: higher risk of fire/explosion.

10.2 *Chemical stability*: stable during storage, use and application in normal conditions.

10.3 *Possibility of hazardous reactions*: reacts violently with (strong) oxidants (increased risk of fire). Violent to explosive reaction with (strong) acids.

10.4 *Conditions to avoid*: keep away from open flames/heat.

If temperatures above flash point are possible: use explosion-proof devices with anti-static protection.

Spray: use explosion-proof devices with anti-static protection.

10.5 *Incompatible materials*: oxidizing agents, reducing agents, strong acids, water/moisture, zinc powder.

10.6 Hazardous decomposition products:

development of hazardous gases or vapors possible in the event of fire:
carbon oxides, carbonyl compounds.

SECTION 11. Toxicological information.

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

a) Acute toxicity:

Ingestion: based on available data, the classification criteria are not met.
LD50, rat, oral: > 22 000 mg/kg

Inhalation: based on available data, the classification criteria are not met.
LC50, rabbit, inhalation: > 317 042 mg/m³; 2h

Skin: based on available data, the classification criteria are not met.
LD50, rabbit, dermal: > 2 000 mg/kg.

b) *Serious eye damage/eye irritation*: based on available data, the classification criteria are not met.

c) Respiratory or skin sensitisation:

Skin sensitization: based on available data, the classification criteria are not met.

Respiratory sensitisation: based on available data, the classification criteria are not met.

d) *Germ cell mutagenicity*: based on available data, classification criteria are not met.

e) *Carcinogenicity*: based on available data, the classification criteria are not met.

f) *Reproductive toxicity*: based on available data, classification criteria are not met.

g) *Specific target organ toxicity - single exposure*: based on available data,
the classification criteria are not met.

h) *Specific target organ toxicity - repeated exposure*: based on available data,
the classification criteria are not met.

i) *Aspiration hazard*: based on available data, the classification criteria are not met.

11.2 Information on other hazards:

11.2.1 Endocrine disrupting properties:

the product does not contain substances above the legally permissible limits contained in the list drawn up in accordance with Art. 59 sec. 1 of Regulation (EC) No. 1907/2006 for having endocrine disrupting properties or which would be identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 .

11.2.2 Other information:

Inhalation: exposure to high concentration: dryness, sore throat;

Contact with the skin: with constant exposure/contact: skin redness, skin dryness, slight irritation;

Eye contamination: redness of the eye tissue, slight irritation;

Ingestion: after absorption of large amounts: nausea, abdominal pain.

SECTION 12. Ecological information.

12.1 Toxicity:

Hazardous to the aquatic environment (acute / short-term): based on the available data, the classification criteria are not met.

Hazardous to the aquatic environment (long-term): based on the available data, the classification criteria are not met.

Hazardous to the ozone layer: based on the available data, the classification criteria are not met.

Fish LC50 *Oncorhynchus mykiss*: 40 613 mg/l;96h

Invertebrates EC50 *Mysidopsis bahia*: 18 800 mg/l;48h

Algae EC50 *Selenastrum capricornutum*: 24 200 mg/l

Microorganisms/ EC0 *Pseudomonas putida* (aqueous): > 20,000 mg/l, 18h
Effect on activated sludge:

Chronic toxicity to aquatic invertebrates: NOEC *Ceriodaphnia sp.*:13,020 mg/l, 7d

12.2 Persistence and degradability :

easily biodegradable.

Elimination data:

- 81,7% CO₂ evolution in relation to the theoretical value (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, municipal)
- 90,6 % CO₂ evolution of theoretical value (64 d) (OECD-Guideline 306) (oxygen, sea water)

12.3 Bioaccumulative potential:

no potential for bioaccumulation.

Log Kow (Log Pow): -1.07 (20°C).

12.4 Mobility in soil: low potential for absorption in soil.

12.5 Results of PBT and vPvB assessment: substance is not PBT or vPvB.

12.6 Endocrine disrupting properties:

the product does not contain substances above the legally permissible limits contained in the list drawn up in accordance with Art. 59 sec. 1 of Regulation (EC) No. 1907/2006 for having endocrine disrupting properties or which would be identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 .

12.7 Other adverse effects: no data available.

SECTION 13. Disposal considerations.

13.1 Waste treatment methods:

Substance: the product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or channels with the product nor used packaging.

Send to a licensed waste disposal plant.

Used packaging: empty the remaining residues.

Consider reuse.

Dispose of as unused product.

Send to a licensed waste disposal plant.

Waste code: to be specified at the place of use.

DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

SECTION 14. Transport information.

The product is not classified as dangerous goods within the meaning of transport regulations.

14.1. UN number or ID number: not applicable

14.2. UN proper shipping name: -

14.3. Transport hazard class(es): -

14.4. Packing group:-

14.5. Environmental hazards:-

14.6. Special precautions for user:

Classification code: -

Stickers: -
Special provisions: -
Limited quantities: -
Excepted quantities: -
Packing instructions: -
Special packing provisions:-
Mixed packing provisions: -
Portable tanks and bulk containers instructions: -
Portable tanks and bulk containers special provisions: -
ADR tank code:-
ADR tank special provisions: -
Vehicle for tank carriage: -
Transport category (Tunnel restriction code): -
Special provisions for carriage – packages: -
Special provisions for carriage – bulk -
Special provisions for carriage - loading, unloading and handling: -
Special provisions for carriage – operation: -
Hazard identification No. -
14.7. Maritime transport in bulk according to IMO instruments: -

SECTION 15. Regulatory information.

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

- a) *Annex XIV - List of substances subject to authorization*
Substances of very high concern: none of the components are in the list.
- b) *Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles: not applicable.*

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

REGULATION (EC) No 767/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 July 2009 on the placing on the market and use of feed, amending European Parliament and Council Regulation (EC) No 1831/2003 and repealing Council Directive 79/373/EEC, Commission Directive 80/511/EEC, Council Directives 82/471/EEC, 83/228/EEC, 93/74/EEC, 93/113/EC and 96/25/EC and Commission Decision 2004/217/EC

Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers.

Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety.

15.2 *Chemical safety assessment*: not applicable.

SECTION 16. Other information.

a) *Indication of changes*: version 1.

b) *Key abbreviations and acronyms used in the safety data sheet*:

ACGIH: American Conference of Governmental Industrial Hygienist

ADN: Accord européen relative au transport international des marchandises Dangereuses par voies de Navigation intérieures.

ADR: the european Agreement concerning the international carriage og Dangerous goods by Road.

B: Bioaccumulative

CSR: Chemical Safety Report

CSA: Chemical Safety Assessment

DNEL: Derived No Effect Level

IATA: International Air Transport Association

IBC: International Bulk Chemical code

ICAO: International Civil Aviation Organization

IMGD: International Maritime Dangerous Goods code

LC50: Lethal Concentration 50

LD50: Lethal Dose 50

LLNA: Local LymphNode Assay

MARPOL: international convention for the prevention of MARine POLLution

P: Persistent

PBT: Persistent, Bioaccumulative and Toxic

PNEC: Predicted No Effect Concentration

RID: Regulations concerning the International carriage of Dangerous goods by rail

SDS: Safety Data Sheet

STEL: Short Term Exposure Limit

TLV: Threshold Limit Value

TWA: Time Weighted Average

vPvB: very Persistent very Bioaccumulative

c) *Key literature references and sources for data*:

Manufacturers safety data sheet.

<https://echa.europa.eu/pl/registration-dossier/-/registered-dossier/16001/1/1>

d) *Indication of which of the methods of evaluating information referred to in Article 9 of Regulation (EC) No 1272/2008 was used for the purpose of mixture classification*: -

e) *List of relevant hazard statements and/or precautionary statements*:

written out in full under section 2.

f) *Advice on any training appropriate for workers to ensure protection of human health and the environment*:

it is recommended to train workers to ensure the protection of human health and the environment. It is necessary for the people working with

the product to read and understand this SDS. We recommend storing the SDS in a place with easy access to it for everyone who works with the product, and (if needed) for emergency services.

Disclaimer: the information contained in the SDS is to describe the product only from the point of safety requirements. Users of the product are responsible for creating the conditions for the safe use of the product and take responsibility for consequences resulting from improper use of this product.

It is recommended to conduct training for health and safety, to ensure protection of human health and the environment.