

# Safety Data Sheet

## 1,2-Propylene Glycol USP

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### 1. Identification

#### Product identifier used on the label

## 1,2-Propylene Glycol USP

#### Recommended use of the chemical and restriction on use

Recommended use\*: food additive(s), Vitamin

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

#### Details of the supplier of the safety data sheet

##### Company:

BASF CORPORATION  
100 Park Avenue  
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

#### Emergency telephone number

##### 24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300  
BASF HOTLINE: 1-800-832-HELP (4357)

#### Other means of identification

Chemical family: glycols  
Synonyms: 1,2-Propylene Glycol

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### 2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

#### Classification of the product

No need for classification according to GHS criteria for this product.

#### Label elements

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The product does not require a hazard warning label in accordance with GHS criteria.

### Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

## 3. Composition / Information on Ingredients

### According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Under the referenced regulation, this product does not contain any components classified for health hazards above the relevant cut off value.

The product contains:

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
57-55-6	>= 99.95 - <= 99.95%	Propylene glycol

## 4. First-Aid Measures

### Description of first aid measures

#### General advice:

Remove contaminated clothing.

#### If inhaled:

Keep patient calm, remove to fresh air.

#### If on skin:

Wash thoroughly with soap and water

#### If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

#### If swallowed:

Rinse mouth and then drink 200-300 ml of water.

### Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Hazards: No applicable information available.

### Indication of any immediate medical attention and special treatment needed

#### Note to physician

Treatment:

Symptomatic treatment (decontamination, vital functions).

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### 5. Fire-Fighting Measures

#### Extinguishing media

Suitable extinguishing media:  
carbon dioxide, dry powder, water spray, alcohol-resistant foam

#### Special hazards arising from the substance or mixture

Hazards during fire-fighting:  
Cool endangered containers with water-spray.

#### Advice for fire-fighters

Protective equipment for fire-fighting:  
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

#### Further information:

Contaminated extinguishing water must be disposed of in accordance with official regulations.

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### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Handle in accordance with good industrial hygiene and safety practice.

#### Environmental precautions

Discharge into the environment must be avoided.

#### Methods and material for containment and cleaning up

For large amounts: Pump off product.  
For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations.

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### 7. Handling and Storage

#### Precautions for safe handling

Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:  
No special precautions necessary.

#### Conditions for safe storage, including any incompatibilities

No applicable information available.

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place. Protect from air. Protect from atmospheric humidity. Protect contents from the effects of light.

Storage stability:  
Storage temperature:  $\leq 40$  °C  
The stated storage temperature should be noted.  
Storage duration: 24 Months  
Protect from temperatures above: 40 °C

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The packed product will be damaged by high temperatures.

### 8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

#### Advice on system design:

No applicable information available.

#### Personal protective equipment

##### Respiratory protection:

Wear a NIOSH-certified (or equivalent) respirator as necessary. Observe OSHA regulations for respirator use (29 CFR 1910.134).

##### Hand protection:

Wear chemical resistant protective gloves., Consult with glove manufacturer for testing data.

##### Eye protection:

Safety glasses with side-shields.

##### Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

##### General safety and hygiene measures:

Wearing of closed work clothing is required additionally to the stated personal protection equipment. Handle in accordance with good industrial hygiene and safety practice.

### 9. Physical and Chemical Properties

Form:	liquid	
Odour:	odourless	
Odour threshold:	not determined	
Colour:	colourless	
pH value:	4 - 7 ( 20 °C)	(internal method)
Melting point:	-59 °C Literature data.	(other)
Freezing point:	No data available.	
Boiling point:	184 °C ( 1,003.2 hPa)	(Directive 92/69/EEC, A.2)
Boiling range:	No data available.	
Sublimation point:	No applicable information available.	
Flash point:	104 °C	(Directive 92/69/EEC, A.9, closed cup) (derived from flash point)
Flammability:	not readily ignited	
Lower explosion limit:	For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.	

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Upper explosion limit:	For liquids not relevant for classification and labelling.	
Autoignition:	> 400 °C	(Directive 84/449/EEC, A.15)
Vapour pressure:	0.2 hPa ( 25 °C)	(Directive 92/69/EEC, A.4)
Density:	1.03 g/cm <sup>3</sup> ( 20 °C)	(Regulation 440/2008/EC, A.3)
Relative density:	1.03 ( 20 °C)	(Directive 92/69/EEC, A.3)
Vapour density:	not applicable	
Partitioning coefficient n-octanol/water (log Pow):	-1.07 ( 20.5 °C)	(Directive 92/69/EEC, A.8)
Refractive index:	1.431 - 1.433 ( 20 °C )	(DIN 51423-2 (n <sub>2D20</sub> ))
Self-ignition temperature:	20 °C not self-igniting	
Thermal decomposition:	No decomposition if correctly stored and handled.	
Viscosity, dynamic:	43.428 mPa.s ( 25 °C) Literature data.	
Viscosity, kinematic:	No data available.	
Particle size:	No applicable information available. The substance / product is marketed or used in a non solid or granular form.	
Solubility in water:	( 20 °C) miscible	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	soluble solvent(s): polar solvents,	
Molar mass:	76.10 g/mol	
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	

## 10. Stability and Reactivity

### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

not fire-propagating

Formation of

flammable gases:

Remarks:

Forms no flammable gases in the presence of water., Study scientifically not justified.

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

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No hazardous reactions if stored and handled as prescribed/indicated.

### Conditions to avoid

> 40 degrees Celsius

Avoid humidity. Avoid daylight. Disregard of the conditions mentioned may result in undesirable decomposition reactions.

Avoid direct sunlight.

### Incompatible materials

zinc, strong oxidizing agents

### Hazardous decomposition products

Decomposition products:

Possible decomposition products: carbonyl compounds, Dioxolan derivatives

Thermal decomposition:

No decomposition if correctly stored and handled.

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## 11. Toxicological information

### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

### Acute Toxicity/Effects

#### Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. In animal studies the substance is virtually nontoxic after short-term inhalation.

#### Oral

Type of value: LD50

Species: rat (male/female)

Value: > 22,000 mg/kg

#### Inhalation

Type of value: LC50

Species: rabbit

Value: > 317042 mg/m<sup>3</sup>

Exposure time: 2 h

#### Dermal

Type of value: LD50

Species: rabbit

Value: > 2,000 mg/kg

No mortality was observed.

#### Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

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### Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. May cause slight irritation to the eyes.

### Skin

Species: rabbit

Result: non-irritant

Method: OECD Guideline 404

### Eye

Species: rabbit

Result: non-irritant

Method: OECD Guideline 405

### Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

The substance did not cause skin sensitization in humans.

### Guinea pig maximization test

Species: guinea pig

Result: Non-sensitizing.

### Aspiration Hazard

not applicable

## **Chronic Toxicity/Effects**

### Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects.

Repeated inhalative uptake of the substance did not cause substance-related effects.

Experimental/calculated data: rat (Sprague-Dawley) (male/female) Inhalation 90 d 0.0, 0.16, 1.0, 2.2 mg/l

NOAEL: 1600 mg/m<sup>3</sup>

rat (male/female) drinking water 140d 0 - 37,000 mg/kg

NOAEL: 13,200 mg/kg

### Genetic toxicity

Assessment of mutagenicity: No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in studies with mammals.

The substance was not genotoxic in mammalian cell culture.

### Carcinogenicity

Assessment of carcinogenicity: In long-term animal studies in which the substance was given in high doses by feed, a carcinogenic effect was not observed.

### Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.

### Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

### Development

mouse (CD-1) gavage 0, 52, 520, 10,400 mg/kg

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NOAEL Mat.: 5,000 mg/kg  
NOAEL Teratog.: 10,400 mg/kg

### Other Information

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

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## 12. Ecological Information

### **Toxicity**

#### Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

#### Toxicity to fish

LC50 (96 h) 40,613 mg/l, *Oncorhynchus mykiss* (Fish test acute, static)

#### Aquatic invertebrates

EC50 (48 h) 18,800 mg/l, *Mysidopsis bahia*

LC50 (48 h) 18,340 mg/l, *Ceriodaphnia dubia* (other)

#### Aquatic plants

EC50 (72 h) 24,200 mg/l (growth rate), *Selenastrum capricornutum* (OECD Guideline 201)

#### Chronic toxicity to fish

Study scientifically not justified.

#### Chronic toxicity to aquatic invertebrates

No observed effect concentration (7 d) 13,020 mg/l, *Ceriodaphnia* sp.

#### Assessment of terrestrial toxicity

Study does not need to be conducted.

#### Soil living organisms

Toxicity to soil dwelling organisms:

Study scientifically not justified.

#### Toxicity to terrestrial plants

Study scientifically not justified.

#### Other terrestrial non-mammals

Study scientifically not justified.

### **Microorganisms/Effect on activated sludge**

#### Toxicity to microorganisms

aquatic

bacterium/EC0 (18 h): > 20,000 mg/l



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### Persistence and degradability

#### Assessment biodegradation and elimination (H<sub>2</sub>O)

Readily biodegradable (according to OECD criteria).

#### Elimination information

81.7 % CO<sub>2</sub> formation relative to the theoretical value (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic)

90.6 % CO<sub>2</sub> formation relative to the theoretical value (64 d) (OECD Guideline 306) (aerobic, Seawater)

#### Assessment photodegradation

After evaporation or exposure to the air, the product will be slowly degraded by photochemical processes.

#### Photodegradation

t<sub>1/2</sub> (Indirect photolysis) 32 h; OH radical

t<sub>1/2</sub> OH radical

t<sub>1/2</sub> OH radical

### Bioaccumulative potential

#### Assessment bioaccumulation potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Significant accumulation in organisms is not to be expected.

#### Bioaccumulation potential

Bioconcentration factor: 0.09 (calculated)

### Mobility in soil

#### Assessment transport between environmental compartments

Study scientifically not justified.

### Additional information

Other ecotoxicological advice:

Do not release untreated into natural waters.

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## 13. Disposal considerations

#### **Waste disposal of substance:**

Dispose of in accordance with national, state and local regulations.

#### **Container disposal:**

Uncontaminated packaging can be re-used. Packs that cannot be cleaned should be disposed of in the same manner as the contents.

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### 14. Transport Information

#### Land transport

USDOT

Not classified as a dangerous good under transport regulations

#### Sea transport

IMDG

Not classified as a dangerous good under transport regulations

#### Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

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### 15. Regulatory Information

#### Federal Regulations

##### Registration status:

Chemical TSCA, US released / listed

Feed TSCA, US released / exempt

Cosmetic TSCA, US released / exempt

**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product.

#### State regulations

##### State RTK

PA

##### CAS Number

57-55-6

25265-71-8

NJ

57-55-6

##### Chemical name

Propylene glycol

dipropylene glycol

Propylene glycol

##### **NFPA Hazard codes:**

Health: 0

Fire: 1

Reactivity: 0

Special:

#### **Assessment of the hazard classes according to UN GHS criteria (most recent version):**

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### 16. Other Information

#### **SDS Prepared by:**

BASF NA Product Regulations

SDS Prepared on: 2023/02/02

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our

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commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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