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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

<u>Company:</u> 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 identificationChemical family:glycolsSynonyms:1,2-Propylene Glycol

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:

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

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
 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.

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.

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: <= 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: Odour:	liquid	
Odour threshold:	not determined	
Colour:	colourless	
nH value:	<i>A</i> - 7	(internal method)
pri value.	(20 °C)	(internal method)
Melting point:	-50 °C	(other)
Mening point.	Literature data	(other)
Freezing point:	No data available	
Poiling point.		
Boiling point.	$(1.002.2 h P_{2})$	
		A.2)
Boiling range:	No data avallable.	
Sublimation point:	No applicable information available.	
Flash point:	104 °C	(Directive
		92/69/EEC, A.9,
		closed cup)
Flammability:	not readily ignited	(derived from flash
\$, 3	point)
Lower explosion limit:	For liquids not relevant for	
	classification and labelling. The lower	
	explosion point may be 5 15 °C	
	explosion point may be 5 - 15 C	
	below the flash point.	

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Upper explosion limit:	For liquids not relevant for	
A	classification and labelling.	
Autoignition:	> 400 °C	(Directive
. <i>.</i>		84/449/EEC, A.15)
Vapour pressure:	0.2 hPa	(Directive
	(25 °C)	92/69/EEC, A.4)
Density:	1.03 g/cm3	(Regulation
	(20 °C)	440/2008/EC, A.3)
Relative density:	1.03	(Directive
	(20 °C)	92/69/EEC, A.3)
Vapour density:	not applicable	
Partitioning coefficient n-	-1.07	(Directive
octanol/water (log Pow):	(20.5 °C)	92/69/EEC, A.8)
Refractive index:	1.431 - 1.433	(DIN 51423-2
	(20 °C)	(n2D20))
Self-ignition	20 °C	
temperature:	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	
	No applicable information available	
Particle size:	The substance / product is marketed	
	or used in a non solid or granular	
	form	
Solubility in water:	(20 °C)	
Coldbinty in water.	miscible	
Solubility (quantitative):	No applicable information available	
Solubility (qualitative):	no applicable information available.	
Solubility (qualitative).	solupie	
Molar mass:	76.10 g/mol	
Evaporation rate:	Value can be approximated from	

10. Stability and Reactivity

Reactivity

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

pressure.

Henry's Law Constant or vapor

Corrosion to metals: No corrosive effect on metal.

Oxidizing properties: not fire-propagating Formation of Remarks: flammable gases:

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.

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.

<u>Oral</u> Type of value: LD50 Species: rat (male/female) Value: > 22,000 mg/kg

Inhalation Type of value: LC50 Species: rabbit Value: > 317042 mg/m3 Exposure time: 2 h

<u>Dermal</u> 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.

<u>Skin</u> Species: rabbit Result: non-irritant Method: OECD Guideline 404

<u>Eye</u> 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/m3 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.

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)

<u>Aquatic invertebrates</u> EC50 (48 h) 18,800 mg/l, Mysidopsis bahia

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

<u>Aquatic plants</u> EC50 (72 h) 24,200 mg/l (growth rate), Selenastrum capricornutum (OECD Guideline 201)

<u>Chronic toxicity to fish</u> Study scientifically not justified.

<u>Chronic toxicity to aquatic invertebrates</u> No observed effect concentration (7 d) 13,020 mg/l, Ceriodaphnia sp.

<u>Assessment of terrestrial toxicity</u> 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

<u>Toxicity to microorganisms</u> aquatic bacterium/EC0 (18 h): > 20,000 mg/l

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Persistence and degradability

Assessment biodegradation and elimination (H2O) Readily biodegradable (according to OECD criteria).

Elimination information

81.7 % CO2 formation relative to the theoretical value (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic)

90.6 % CO2 formation relative to the theoretical value (64 d) (OECD Guideline 306) (aerobic, Seawater)

<u>Assessment photodegration</u> After evaporation or exposure to the air, the product will be slowly degraded by photochemical processes.

Photodegradation t_{1/2} (Indirect photolysis) 32 h; OH radical

t1/2 OH radical

t1/2 OH radical

Bioaccumulative potential

<u>Assessment bioaccumulation potential</u> 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.

<u>Bioaccumulation potential</u> 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.

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.	4. 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	

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	CAS Number	Chemical name
PA	57-55-6 25265-71-8	Propylene glycol dipropylene glycol
NJ	57-55-6	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):

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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