Material Safety Data Sheet

1,3-Propanediol

Version: 2.0 EN

Revision Date: 2025-1

SECTION 1: IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 Product identifiers

Product Name	1,3-Propanediol
CAS No	504-63-2
Synonyms	Trimethylene glycol;1,3-Dihydroxypropane

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

Recommended Use	Chemical intermediate,For research and industrial use only

1.3 Details of the supplier of the safety data sheet

Company	China lithium Products technology Company Limited
	9 HG, No.99 LuJiang Road, Xiamen city, China
Telephone	+86 592 2687860
Email	info@lithium-chemical.com

1.4 Emergency telephone number

Emergency phone #	+86 592 2687860

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture

2.2 GHS Label elements, including precautionary statements

Pictogram	None
Signal Word	Warning

Hazard Statements

H316	Causes mild skin irritation

Precautionary Statements

No data available

Response

P332 + P313	If skin irritation occurs: Get medical advice/ attention

Hazard Statements

No data available

Precautionary Statements

No data available

Supplemental Hazard Statements

None

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No data available

2.4 Other hazards

None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance name	1,3-Propanediol
Formula	$C_3H_8O_2$
CAS No	504-63-2
EC No	207-997-3

Hazardous ingredients: Skin corrosion/irritation Category 3; H316;Concentration:<= 100 %

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled

Provide fresh air

In case of skin contact

Brush off loose particles from skin. Rinse skin with water/shower

In case of eye contact

Rinse out with plenty of water. Remove contact lenses

If swallowed

Make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Water spray. Carbon dioxide (CO 2). Dry chemical. Chemical foam

Unsuitable extinguishing media

No information available

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Combustible

Vapors are heavier than air and may spread along floors

Forms explosive mixtures with air on intense heating

Development of hazardous combustion gases or vapours possible in the event of fire

5.3 Advice for firefighters www.lithium-chemical.com

Wear self-contained breathing apparatus for firefighting if necessary

5.4 Further information

None

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert

For personal protection see section 8

6.2 Environmental precautions

Do not let product enter drains

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed

Hygroscopic. Light sensitive

Storage class

Storage class (TRGS 510): 10: Combustible liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters:	Contains no substances with occupational exposure limit values

8.2 Exposure controls

Appropriate engineering controls:	Change contaminated clothing. Wash hands after working with substance

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands

Respiratory protection

required when dusts are generated

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system

Control of environmental exposure

Do not let product enter drains

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Form:clear, liquid, viscous Colour: colorless
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	-27 °C - lit
Initial boiling point and boiling range	214 °C at 1,013 h Pa - lit
Flash point	> 99 °C - closed cup - ASTM D 56
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Lower explosion limit: 2.5 %(V)
Vapour pressure	< 0.1 h Pa at 20 °C
Density	1.053 g/mL at 25 °C - lit
Relative density	1.05 at 25 °C
Water solubility	1,000 g/l at 21 °C - OECD Test Guideline 105- completely soluble
Partition coefficient: n- octanol/water	No data available
Auto-ignition temperature	342 °C at 1,021.24 hPa
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: 44.923 mm2/s at 24 °C - (ECHA) Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available

9.2 Other safety information

Relative vapour density	2,63- (Air = 1.0)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature)

10.3 Possibility of hazardous reactions

Violent reactions possible with:

Oxidizing agents

Reducing agents

Acid halides

Acid anhydrides

10.4 Conditions to avoid

Strong heating

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

	LD50 Oral - Rat - male and female - 10,500 mg/kg (OECD Test Guideline 401)
Acute toxicity:	Inhalation: No data available LD50 Dermal - Rat - male and female - > 4,200 mg/kg
	Remarks: (ECHA)
	Skin - Rabbit
Skin corrosion/irritation:	Result: Mild skin irritation - 24 h
	(OECD Test Guideline 404)
	Eyes - Rabbit
Serious eye damage/eye irritation:	Result: No eye irritation - 1 s
	(OECD Test Guideline 405)
	Draize Test - Guinea pig
Respiratory or skin sensitization:	Result: negative
	Remarks: (ECHA)
	Test Type: Ames test
Germ cell mutagenicity:	Test system: Salmonella typhimurium
	Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471
Result: negative
Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
Test Type: Chromosome aberration test in vitro Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
Test Type: Micronucleus test
Species: Mouse
Cell type: Bone marrow
Application Route: Intraperitoneal
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	Static test LC50 - Pimephales promelas (fathead minnow) - > 9,720 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - 7,417 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	Static test ErC50 - Desmodesmus subspicatus (green algae) - > 10,000 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	Static test EC50 - Pseudomonas putida - 11,000 mg/l - 16 h

	(DIN 38 412 Part 8)
	Remarks: (ECHA)

12.2 Persistence and degradability

	Aerobic - Exposure time 28 d
Biodegradability	Result: 71 % - Readily biodegradable
	(OECD Test Guideline 301B)

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities

SECTION 14: TRANSPORT INFORMATION

ADR/RID

UN number： No	Packing group: No	Environmental hazards： No
Proper shipping name： No	Transport hazard class(es)： No	

IMDG

IMDG UN number： No	Packing group: No	Environmental hazards： No
Proper shipping name： No	Transport hazard class(es):No	

IATA

UN number： No	Packing group: No	Environmental hazards： No
Proper shipping name: No	Transport hazard class(es)： No	

SECTION 15: REGULATORY INFORMATION

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

National regulatory information

No data available

15.2 Other regulations

Please pay attention on the waste treatment should also comply with local regulations requirement

SECTION 16: OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. China Lithium Product Technology Co., Ltd.(CLPC) and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.lithium-chemical.com for additional terms and conditions of sale.