



SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2021

Date Updated: May 06, 2021

SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION-----

Product Name Propylene glycol (1,2-Propanediol)
Product Code(s) PD0450
Recommended Use For Laboratory Research Use Only
Not for Human or Animal Drug Use

Supplier Bio Basic Inc.
Address 20 Konrad Crescent, Markham, Ontario,
Canada, L3R 8T4
Telephone (905) 474 4493
Fax (905) 474 5794
For Chemical Emergency Phone# (416) 995 9730

SECTION 2. ----- HAZARDS IDENTIFICATION -----

Classification of the substance or mixture

Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements

Not a hazardous substance or mixture

Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

| Chemical Name | EC No. | CAS-No | Weight % |
|-----------------|-----------|---------|----------|
| 1,2-Propanediol | 200-338-0 | 57-55-6 | <100 |

SECTION 4. ----- FIRST-AID MEASURES-----

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. ----- FIRE FIGHTING MEASURES -----

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Water Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given. For this substance/mixture no limitations of extinguishing agents are given.

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.

Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

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.

Environmental precautions

Do not let product enter drains.

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 (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7. ----- HANDLING AND STORAGE-----

Precautions for safe handling

For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed.

Hygroscopic. Light sensitive.

Storage class (TRGS 510): 10: Combustible liquids

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated

SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

Control parameters

Ingredients with workplace control parameters

| | |
|---|---|
| c) Odor Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | Melting point/range: -60 °C (-76 °F) |
| f) Initial boiling point and boiling range | 187 °C 369 °F |
| g) Flash point | 104 °C (219 °F) - closed cup - Regulation (EC) No. 440/2008, Annex, A.9 |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | Upper explosion limit: 12.5 %(V) Lower explosion limit: 2.6 %(V) |
| k) Vapor pressure | 0.2 hPa at 25 °C (77 °F) - Regulation (EC) No. 440/2008, Annex, A.4 |
| l) Vapor density | No data available |
| m) Relative density | 1.03 at 20 °C (68 °F) - Regulation (EC) No. 440/2008, Annex, A.3 |
| n) Water solubility | completely miscible |
| o) Partition coefficient: n-octanol/water | Pow: 0.085; log Pow: -1.07 at 20.5 °C (68.9 °F) - Regulation (EC) No. 440/2008, Annex, A.8 - Bioaccumulation is not expected. |
| p) Autoignition temperature | > 400 °C (> 752 °F) at > 1,000.1 - < 1,014.4 hPa |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

Other safety information

Surface tension 71.6 mN/m at 1.01g/l at 21.5 °C (70.7 °F) - Surface tension

SECTION 10. -----STABILITY AND REACTIVITY -----

Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

Chemical stability

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

Possibility of hazardous reactions

increased reactivity with:

Oxidizing agents Acid
anhydrides Acid
chlorides

Conditions to avoid

Exposure to moisture. Strong heating.

Incompatible materials various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

Acute toxicity

LD50 Oral - Rat - male and female - 22,000 mg/kg Remarks: (ECHA)

Inhalation: No data available

Acute toxicity estimate Dermal - 2,500 mg/kg (Calculation method)

LD50 Dermal - Rabbit - > 2,000 mg/kg Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)

Germ cell mutagenicity

Chromosome aberration test in vitro Human lymphocytes

Result: negative

Ames test

S. typhimurium Result: negative Remarks: (ECHA)

Mouse - male - Bone marrow Result: negative

Remarks: (ECHA)

Rat - male - Bone marrow

Result: negative Remarks: (ECHA)

Rat - male Result: negative Remarks: (ECHA)

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

Additional Information

Repeated dose toxicity - Rat - male - Oral - 2 yr - NOAEL (No observed adverse effect level) - 1,700

mg/kgRemarks:
(ECHA)

RTECS: TY2000000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. ----- ECOLOGICAL INFORMATION -----

Toxicity

| | | |
|---|---|------|
| Toxicity to fish | static test LC50 - Oncorhynchus mykiss (rainbow trout) - 40,613 mg/l - 96 h Remarks: (ECHA) | |
| Toxicity to daphnia and other aquatic invertebrates | static test LC50 - Ceriodaphnia dubia (water flea) - 18,340 mg/l h (US-EPA) | - 48 |
| Toxicity to algae | static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 19,000 mg/l - 96 h (OECD Test Guideline 201) | |
| Toxicity to bacteria | NOEC - Pseudomonas putida - > 20,000 mg/l - 18 h Remarks: (ECHA) | |

Persistence and degradability

Biodegradability aerobic Dissolved organic carbon (DOC) - Exposure time 28 d
Result: 98.3 % - Readily biodegradable.
(OECD Test Guideline 301F)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

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

Other adverse effects

Biological effects:

When discharged properly, no impairments in the function of adapted biological wastewater treatment plants are to be expected.

Stability in water - 2.3 yr
Remarks: reaction with hydroxyl radicals(IUCLID)

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14. ----- TRANSPORT INFORMATION -----

TDG

Not regulated as a dangerous good

IMDG

Not dangerous goods

IATA

Not dangerous goods

Further information

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. ----- REGULATORY INFORMATION -----

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

SECTION 16. ----- OTHER INFORMATION -----

Further information: no limited for paper copy, just for internal uses.
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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End of SDS