

**Safety data sheet as per COMMISSION REGULATION (EU) No 453/2010
of 20 May 2010 amending Regulation (EC) No 1907/2006
Product: 1,5-Pentanediol**



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

1.1 Product identifier

Trade name: 1,5-Pentanediol

CAS No.: 111-29-5

EC No.: 203-854-4

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

Relevant identified uses: Manufacture and formulations

- used as plasticizer and also manufacture of polyesters

- manufacture of specialty chemicals

Sector of use: SU 8,9 Manufacture of fine and bulk, large scale chemicals

Environmental release category: Manufacture (ERC1) and formulations (ERC2)

Manufacturer/Supplier:

Prasol Chemicals Ltd.,
Prasol House, Plot No.A-17/2/3,
T.T.C. Indl. Area, Khairne M.I.D.C.,
Navi Mumbai - 400 710.
Maharashtra, India.
Tel: +91-22-27782555
Fax: +91-22-27782430

Further information obtainable from:

Mr. Dhaval Parikh

e-mail:sales@prasolchem.com; inquiry@prasolchem.com

Information in case of emergency:

Product safety department Tel: +91-22- 27782555; Fax: +91-22- 27782430

Other Comments (e.g. language(s) of the phone service): English

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.1.2 Classification according to Directive 67/548/EEC or Directive 1999/45/EC

This substance is not classified as dangerous according to Directive 67/548/EEC

Information concerning particular hazards for human and environment: Not applicable

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008 (CLP)

The product does not need to be labeled in accordance with EC directives or respective national laws.

Hazard pictograms none

Signal word none

Hazard-determining components of labeling: Void

Hazard statements

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P362 Take off contaminated clothing and wash before reuse

2.3 Other hazards

Results of PBT and vPvB assessment: Not applicable

SECTION 3: Composition/information on ingredients

Chemical characterization:

CAS No. Description
111-29-5 1,5-Pentanediol

Identification number(s)

EC Number: 203-854-4

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Additional information:

Molecular Formula: C₅H₁₂O₂

Molecular Weight: 104.15g/mol

SECTION 4: First aid measures

4.1 General information: Immediately remove any clothing soiled by the product.

After inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

After swallowing: If symptoms persist consult doctor.

Information for doctor: Treat symptomatically and supportively.

4.2 Most important symptoms and effects, both acute and delayed Gastrointestinal disturbance, Nausea, Headache, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

5.1 Suitable extinguishing agents: Carbon dioxide (CO₂), foam, dry powder

5.2 Special hazards caused by the substance, its products of combustion or resulting gases: Carbon oxides

5.3 Protective equipment: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Person-related safety precautions: Wear protective clothing. Avoid contact with the skin, eyes and clothing.

6.2 Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

6.3 Measures for cleaning/collecting:

Cover drains. Collect, bind, and pump off spills. Take up with liquid absorbent material. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment

See Section 13 for disposal information

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Normal measures for preventive fire protection.

Information about fire - and explosion protection: Keep ignition sources away. Do not smoke.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well-ventilated area.

Store away from acids and strong oxidizing agents

Information about storage in one common storage facility: Store away from incompatible materials.

Further information about storage conditions: Keep container tightly sealed.

7.3 Specific end use(s) No further relevant information available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

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Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protection of hands: Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

Full contact: Glove material- Nitrile rubber Glove thickness: 0.11 mm

Splash contact: Glove material- Nitrile rubber Glove thickness: 0.11 mm

Penetration time of glove material

Full contact: Recommended break through time: >480 min

Splash contact: Recommended break through time: >480min

Eye protection: Tightly sealed goggles; Face shield

Body protection: Apron, boots.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : colorless viscous liquid

Odor : odorless

Odor threshold : not applicable

pH : 5.7 at 500 g/l at 20 °C

Melting point/Melting range : -16°C

Boiling point/Boiling range : 237.9°C

Flash point, open cup : 142°C

Evaporation rate : no data available

Flammability (solid, gas) : not applicable

Upper/lower flammability or explosive limits: no data available

Vapor pressure at 20°C : 0.0052 hPa at 25°C

Vapor density : no data available

Density at 25°C : 0.985g/cm³

Solubility in / Miscibility with water : 1000g/L, miscible

Partition coefficient (n-octanol/ water) : log Pow = -0.49 at 25°C

Auto-ignition temperature : 330°C

Decomposition temperature : Not determined

Viscosity: Dynamic at 20°C : 135mPas

Explosive properties : No explosive properties

Oxidizing properties : No oxidizing properties

9.2 Other information

Bulk density (solid) 0.53g/L

SECTION 10: Stability and reactivity

10.1 Reactivity: stable under normal handling and storage conditions

10.2 Chemical stability Stable under normal conditions.

10.3 Possibility of hazardous reactions When handled and stored appropriately, no dangerous reactions are known.

10.4 Conditions to avoid Keep away from excess heat

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10.5 Incompatible materials: acids, acid chlorides, isocyanates, strong oxidizing agents

10.6 Hazardous decomposition products: May emit toxic and irritant fumes in fire conditions

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD50 oral rat 10000mg/kg (practically non- toxic)

LC0 inhalation 7h; 0.078 mg/m³ air; rat (practically non- toxic)

LD50 Dermal rabbit > 19800 mg/kg bw

Skin corrosion/irritation: non- irritating rabbit

Serious eye damage/irritation: non- irritating, rabbit

Respiratory or skin sensitization: not sensitizing

Germ cell mutagenicity: not genotoxic

Carcinogenicity: No component 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

STOT-single exposure: not irritating to eye and skin

STOT-repeated exposure: no data available

Aspiration hazard: not determined

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

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

LC50 96h 4.640 - 10.000 mg/l mg/L *Leuciscus idus*

EC50 48h > 500mg/L *Daphnia magna*

EC50 72h > 500mg/L *Desmodesmus subspicatus*

LC50 17h 234,5 mg/l mg/L *Pseudomonas putida*

12.2 Persistence and degradability Biodegradability 95% Exposure time:28d Method:OECD Test Guideline 302B (Lit.) Result: easily eliminable

12.3 Bio-accumulative potential:

Partition coefficient: n-octanol/water log Pow:-0.49

Method: (calculated) (Lit.) Bioaccumulation is not expected (log Pow < 1)

12.4 Mobility in soil no further data; the substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

Additional ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment To be provided after the REACH registration

12.6 Other adverse effects No further relevant information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation: Observe all federal, state, and local environmental regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contaminated packaging:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

Land Transport (ADR/RID) Marine Transport (IMDG) Air Transport (ICAO/ IATA)

14.1 UN/ID Number: -

14.2 UN proper shipping name not dangerous goods in transport regulations

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- 14.3 Transport hazard -
14.4 Packaging group: -
14.5 Environmental hazards: none
14.6 Special precautions for the user: no further data
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006

Hazard pictograms Please refer section 2

Signal word none

Hazard statements Please refer section 2

Precautionary statements Please refer section 2

Labeling according to EU guidelines: The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

Code letter and hazard designation of product: please refer Section 2

Risk phrases: please refer Section 2.

15.2 Chemical safety assessment A Chemical Safety Assessment has not been carried out and shall be available at the time of REACH registration

Substances of very high concern (SVHC) according to REACH, Article 57

The substance is not listed as SVHC.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS:

Product safety department.

Contact:

Tel: +91-022-27782555

Fax: +91-022-27782430

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

EC50: half maximal effective concentration

EINECS: European Inventory of Existing Commercial Chemical Substances

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

IMDG: International Maritime Code for Dangerous Goods

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

Sources

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

ECHA: http://apps.echa.europa.eu/registered/data/dossiers/DISS-9d8a3be5-da5f-19d9-e044-00144f67d249/DISS-9d8a3be5-da5f-19d9-e044-00144f67d249_DISS-9d8a3be5-da5f-19d9-e044-00144f67d249.html

Chemidplus: <http://chem.sis.nlm.nih.gov/chemidplus/rn/111-29-5>

Sigma:

<http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=IN&language=en&productNumber=76892&brand=FLUKA&PageToGoToURL=http%3A%2F%2Fwww.sigmaaldrich.com%2Fcatalog%2Fproduct%2Ffluka%2F76892%3Flang%3Den>

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Data compared to the previous version altered.

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