

MATERIAL SAFETY DATA SHEET (MSDS)**1,4-BUTANEDIOL (FOR SYNTHESIS)****1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name : 1,4-BUTANEDIOL (FOR SYNTHESIS)

Product code : SS0113200500

Identification of the product : 1,4 BUTANEDIOL
CAS No :110-63-4**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet**Company identification**SUVCHEM
Chaitanya Tower, 2nd Floor, Office # 206,
Siddharth Nagar, S.V. Road,
Goregaon (West), Mumbai - 400062,
Maharashtra, India.
Contact: +91 22 28725393 / 94 / 95
Email ID: info@suvchem.com/care@suvchem.com**1.4. Emergency telephone number**

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD**2.1. Classification of the substance or mixture****Classification EC 67/548 or EC 1999/45**Classification : Xn; R22
R67**Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)**Health hazards : Specific Target Organ Toxicity - Single exposure - Narcotic effects - Category 3 -
Warning (CLP : STOT SE 3) H336
Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302**2.2. Label elements****Labelling EC 67/548 or EC 1999/45**

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2. Hazards identification -DSD (continued)

Symbol(s)



Symbol(s)

: Xn : Harmful

R Phrase(s)

: R22 : Harmful if swallowed.

R67 : Vapours may cause drowsiness and dizziness.

S Phrase(s)

: S23 : Do not breathe the gas, fumes, vapours, spray.

S36 : Wear suitable protective clothing.

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms



Signal words

: Warning

Hazard statements

: H302 : Harmful if swallowed.

H336 : May cause drowsiness or dizziness.

Precautionary statements

• Prevention

: P271: Use only outdoors or in a well-ventilated area.

P261: Avoid breathing dust, fume, gas, mist, vapours, spray.

P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

• Response

: P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you feel unwell.

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

• Storage

: P403+P233: Store in well-ventilated place. Keep container tightly closed.

P405: Store locked up.

• Disposal considerations

: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Other hazards

: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

Substance / Preparation

 : 1,4 BUTANEDIOL
 CAS No :110-63-4
 Substance.

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3. Composition/information on ingredients (continued)

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures
4.1. Description of first aid measures

Inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
Skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
Ingestion	: Obtain emergency medical attention. Call a POISON CENTER or doctor if you feel unwell. Do NOT induce vomiting. Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms relating to use	: Swallowing a small quantity of this material will result in serious health hazard. May cause drowsiness or dizziness.
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4.3. Indication of any immediate medical attention and special treatment needed

General information	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
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5. Fire-fighting measures
5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.
Surrounding fires	: Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	: Under fire conditions, hazardous fumes will be present.
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5.3. Advice for fire-fighters

Protection against fire	: Do not enter fire area without proper protective equipment, including respiratory protection.
Special procedures	: Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For emergency responders** : Equip cleanup crew with proper protection.
 Ventilate area.
 Avoid breathing dust, fume, gas, mist, vapours, spray.
- For non-emergency personnel** : Evacuate unnecessary personnel.

6.2. Environmental precautions

- Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Clean up methods** : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage

7.1. Precautions for safe handling

- Handling** : Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product.
- Technical protective measures** : Provide good ventilation in process area to prevent formation of vapour.
- Special precautions** : Avoid breathing dust, fume, gas, mist, vapours, spray.

7.2. Conditions for safe storage, including any incompatibilities

- Storage** : Keep only in the original container in a cool, well ventilated place. Keep container tightly closed.
- Storage - away from** : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

- Specific end use(s)** : None.

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8. Exposure controls/personal protection
8.1. Exposure controls

Personal protection	: Avoid all unnecessary exposure.
• Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
• Hand protection	: Wear protective gloves.
• Eye protection	: Chemical goggles or safety glasses.
• Others	: When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits	: No data available.
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9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Liquid.
Colour	: Clear Colorless
Odour	: Odorless
Odour threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: 16 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: N/A
Flammability (solid, gas)	: N/A
Flash point [°C]	: N/A
Boiling point [°C]	: 230 °C
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: N/A
Vapour pressure mm/Hg	: N/A
Vapour density	: 3,11
Density [g/cm³]	: 1,017
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Soluble in water

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Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: N/A
Viscosity at 40°C [mm ² /s]	: N/A

9.2. Other information

Explosive properties	: N/A
Explosion limits - upper [%]	: N/A
Explosion limits - lower [%]	: N/A
Oxidising properties	: No data available.

10. Stability and reactivity**10.1. Reactivity**

Reactivity	: Not established.
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10.2. Chemical stability

Chemical stability	: Stable under recommended storage conditions.
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10.3. Possibility of hazardous reactions

Hazardous reactions	: Not established.
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10.4. Conditions to avoid

Conditions to avoid	: Direct sunlight. Extremely high or low temperatures.
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10.5. Incompatible materials

Materials to avoid	: Strong acids. Strong bases.
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10.6. Hazardous decomposition products

Hazardous decomposition products	: Fumes. Carbon monoxide. Carbon dioxide.
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11. Toxicological information**11.1. Information on toxicological effects**

Acute toxicity	
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11. Toxicological information (continued)

• Inhalation	: Based on available data, the classification criteria are not met.
• Dermal	: Based on available data, the classification criteria are not met.
• Ingestion	: Harmful if swallowed.
Corrosion	: Based on available data, the classification criteria are not met.
Irritation	: Based on available data, the classification criteria are not met.
Sensitization	: Based on available data, the classification criteria are not met.
Mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Toxic for reproduction	: Based on available data, the classification criteria are not met.
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

12. Ecological information
12.1. Toxicity

Toxicity information : Not established.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

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13. Disposal considerations

13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14. Transport information

14.1. Land transport (ADR-RID)

General information : Not regulated.

14.2. Sea transport (IMDG), [English only]

General information : Not regulated.

14.3. Air transport (ICAO-IATA), [English only]

General information : Not regulated.

15. Regulatory information

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

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.

REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.

REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment : It has not been carried out.

16. Other information

Revision : Revision - See : *

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic.
 vPvB: very persistent and very bioaccumulative

Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

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In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

DISCLAIMER:

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

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