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MATERIAL SAFETY DATA SHEET (MSDS)

2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : 2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)
 Product code : SS0113802500
 Identification of the product : 2-butoxyethanol
 CAS No : 111-76-2
 EC No : 203-905-0
 Annex No : 603-014-00-0

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; R20/21/22
 Xi; R36/38

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Specific Target Organ Toxicity - Single exposure - Respiratory tract irritation -
 Category 3 - Warning (CLP : STOT SE 3) H335
 Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319
 Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4) H332
 Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302
 Acute toxicity, dermal - Category 4 - Warning (CLP : Acute Tox. 4) H312
 Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315

2.2. Label elements

MATERIAL SAFETY DATA SHEET (MSDS)
2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)
2. Hazards identification -DSD (continued)
Labelling EC 67/548 or EC 1999/45
Symbol(s)

Symbol(s)

: Xn : Harmful

R Phrase(s)

 : R20/21/22 : Harmful by inhalation, in contact with skin and if swallowed.
 R36/38 : Irritating to eyes and skin.

S Phrase(s)

 : S2 : Keep out of the reach of children.
 S36/37 : Wear suitable protective clothing and gloves.
 S46 : If swallowed seek medical advice immediately and show this container or label.

Contains

: 2-butoxyethanol

Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms

Signal words

: Warning

Hazard statements

 : H302 : Harmful if swallowed.
 H312 : Harmful in contact with skin.
 H319 : Causes serious eye irritation.
 H315 : Causes skin irritation.
 H332 : Harmful if inhaled.
 H335 : May cause respiratory irritation.

Precautionary statements
• General

 : P102: Keep out of reach of children.
 P103: Read label before use.
 P101: If medical advice is needed, have product container or label at hand.

• Prevention

 : P280: Wear protective gloves, protective clothing, eye protection, face protection.
 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

 : P302+P352: IF ON SKIN : Wash with plenty of soap and water.
 P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you feel unwell.
 P332+P313: If skin irritation occurs : Get medical advice.
 P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.
 P363: Wash contaminated clothing before reuse.

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MATERIAL SAFETY DATA SHEET (MSDS)

2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)

2. Hazards identification -DSD (continued)

- **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.
- Contains** : 2-butoxyethanol

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 : 2-butoxyethanol
 CAS No :111-76-2
 EC No :203-905-0
 Annex No :603-014-00-0
 Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
2-butoxyethanol	100 %	111-76-2	203-905-0	603-014-00-0	----	Xn; R20/21/22 Xi; R36/38 Acute Tox. 4 (skin) _ H312 Acute Tox. 4 (inhal) _ H332 Acute Tox. 4 (oral) _ H302 Eye irrit 2 _ H319 Skin Irrit. 2 _ H315 STOT SE 3 _ H335

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** : Call a POISON CENTER or doctor if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Wash contaminated clothing before reuse. Wash with plenty of soap and water. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor. Get medical advice. If skin irritation occurs :
- Eye contact** : Get medical advice. If eye irritation persists : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.
- 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** : Repeated exposure to this material can result in absorption through skin causing significant health hazard.
 Danger of serious damage to health by prolonged exposure through inhalation.

MATERIAL SAFETY DATA SHEET (MSDS)
2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)
4. First aid measures (continued)

Causes serious eye irritation.
 Causes skin irritation. May cause respiratory irritation.
 Swallowing a small quantity of this material will result in serious health hazard.

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).

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.

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.

6. Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection.
 Ventilate area.
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

MATERIAL SAFETY DATA SHEET (MSDS)
2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)
6. Accidental release measures (continued)

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 : Avoid breathing dust, fume, gas, mist, vapours, spray. Wash thoroughly after 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.

8. Exposure controls/personal protection
8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.

- **Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment.
- **Hand protection** : Wear protective gloves.
- **Skin protection** : Wear suitable protective clothing.
- **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.

VLA-ED [ppm] : 20

MATERIAL SAFETY DATA SHEET (MSDS)
2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)
8. Exposure controls/personal protection (continued)

VLA-ED [mg/m ³]	: 98
VLA-EC [ppm]	: 50
VLA-EC [mg/m ³]	: 245
ILV (EU) - 8 H - [ppm]	: (20 Skin.)
ILV (EU) - 8 H - [mg/m ³]	: (98 Skin.)
OEL (UK)-LTEL [ppm]	: 25
OEL (UK)-STEL [ppm]	: 50

9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Liquid.
Colour	: Clear Colorless
Odour	: Mild odor
Odour threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: -75 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 240
Flammability (solid, gas)	: Flammable.
Flash point [°C]	: 67 °C
Boiling point [°C]	: 171
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: 0,07
Vapour pressure [20°C]	: 0.8 mm Hg @ 20C
Vapour pressure mm/Hg	: 0.8 mm Hg @ 20C
Vapour density	: 4,07
Density [g/cm ³]	: 0,9
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: In water, material soluble.
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

MATERIAL SAFETY DATA SHEET (MSDS)
2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)
9. Physical and chemical properties (continued)

Explosive properties	: N/A
Explosion limits - upper [%]	: 12,70%
Explosion limits - lower [%]	: 1,10%
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

- Inhalation : Harmful if inhaled.
- Dermal : Harmful in contact with skin.
- Ingestion : Harmful if swallowed.

Corrosion

: Based on available data, the classification criteria are not met.

Irritation

 : Causes serious eye irritation.
 Causes skin irritation.
 May cause respiratory irritation.

MATERIAL SAFETY DATA SHEET (MSDS)
2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)
11. Toxicological information (continued)

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	: Based on available data, the classification criteria are not met.
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.

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.

MATERIAL SAFETY DATA SHEET (MSDS)
2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)
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

 List of relevant R phrases (heading 3) : R20/21/22 : Harmful by inhalation, in contact with skin and if swallowed.
R36/38 : Irritating to eyes and skin.

 List of full text of H-statements in section 3 : H302 : Harmful if swallowed.
H312 : Harmful in contact with skin.
H315 : Causes skin irritation.
H319 : Causes serious eye irritation.
H332 : Harmful if inhaled.
H335 : May cause respiratory irritation.

MATERIAL SAFETY DATA SHEET (MSDS)

2-BUTOXYETHANOL LR (BUTYL CELLOSOLVE, BUTYL GLYCOL)

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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