

MATERIAL SAFETY DATA SHEET (MSDS) 1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

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

1.1. Product identifier			
Trade name	: 1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)		
Product code	: SS0101202500		
Identification of the product	: 1-Butanol CAS No :71-36-3 EC No :200-751-6 Annex No :603-004-00-6		
Chemical formula	: C4H10O		
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 : R10 Xn; R22 R67 Xi; R37/38-41

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
Specific Target Organ Toxicity - Single exposure - Narcotic effects - Category 3 -
Warning (CLP : STOT SE 3) H336
Serious eye damage - Category 1 - Danger (CLP : Eye Dam. 1) H318
Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315

OM SHREE GANESHYA NAMAH



CHAITANYA CHS, 2nd FLOOR, OFFICE # 206, SIDDHARTH NAGAR, S.V.ROAD, GOREGAON (W), MUMBAł 400062, MH, INDIA. CONTACT: +9122 28725393 /94/ 95 | EMAILID: CARE@SUVCHEM.COM

MATERIAL SAFETY DATA SHEET (MSDS) 1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

2. Hazards identification -DSD (continued)		
	Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302	
Physical hazards	: Flammable liquids - Category 3 - Warning (CLP : Flam. Liq. 3) H226	
2.2. Label elements		
<u>Labelling EC 67/548 or EC 1999/45</u>		
Symbol(s)	×	
Symbol(s)	: Xn : Harmful	
R Phrase(s)	: R10 : Flammable.	
	R22 : Harmful if swallowed. R37/38 : Irritating to respiratory system and skin.	
	R41 : Risk of serious damage to eyes.	
S Phraso(c)	R67 : Vapours may cause drowsiness and dizziness. : S2 : Keep out of the reach of children.	
S Phrase(s)	 S2 : Keep out of the reach of children. S7/9 : Keep container tightly closed and in well-ventilated place. S13 : Keep away from food, drink and animal feedingstuffs. S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39 : Wear suitable gloves and eye/face protection. S46 : If swallowed seek medical advice immediately and show this container or label. 	
Contains	: 1-Butanol	
Labelling Regulation EC 1272/2008	(<u>CLP)</u>	
Hazard pictograms	I I I I I I I I I I I I I I I I I I I	
Signal words	: Danger	
Hazard statements	 H226 : Flammable liquid and vapour. H318 : Causes serious eye damage. H302 : Harmful if swallowed. H315 : Causes skin irritation. H335 : May cause respiratory irritation. H336 : May cause drowsiness or dizziness. 	
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.	



MATERIAL SAFETY DATA SHEET (MSDS) 1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

Prevention P240: Ground/bond container and receivin P241: Use explosion proof electrical ventil	
P241: Use explosion-proof electrical, venti P210: Keep away from heat, sparks, open P280: Wear protective gloves, protective c P271: Use only outdoors or in a well-ventil P261: Avoid breathing dust, fume, gas, mis P233: Keep container tightly closed. P264: Wash thoroughly after handling. P270: Do not eat, drink or smoke when usi	flames or hot surfaces No smoking. clothing, eye protection, face protection. lated area. st, vapours, spray.
 Response P302+P352: IF ON SKIN : Wash with plent P301+P312: IF SWALLOWED : Call a POI unwell. P332+P313: If skin irritation occurs : Get m P305+P351+P338: IF IN EYES : Rinse cat Remove contact lenses, if present and eas P304+P340: IF INHALED : Remove to fres comfortable for breathing. P303+P361+P353: IF ON SKIN (or hair) : I clothing. Rinse skin with water/shower. P363: Wash contaminated clothing before P370+P378: In case of fire: Use for extinct 	ISON CENTER or doctor if you feel nedical advice. utiously with water for several minutes. sy to do. Continue rinsing. sh air and keep at rest in a position Remove immediately all contaminated reuse.
• Storage : P403+P233: Store in well-ventilated place. P403+P235: Store in well-ventilated place. P405: Store locked up.	
• Disposal considerations : P501: Dispose of this material and its contaction point, in accordance with local, regulation.	
Contains : 1-Butanol	
2.3. Other hazards	
Other hazards : The substance does not fulfil the criteria to substance according to Annex XIII of Regulation	

Substance / Preparation	CA EC An	Butanol IS No :71-36- No :200-751 nex No :603- bstance.	-6			
Substance name 1-Butanol :	Contents 100 %	CAS No 71-36-3	EC No 200-751-6	Annex No 603-004-00-6	REACH Ref.	Classification R10 Xn; R22 R67 Xi; R37/38-41
						Eye Dam 1 _ H318 Flam. Liq. 3 _ H226 Acute Tox. 4 (oral) _ H302 Skin Irrit. 2 _ H315 STOT SE 3 _ H335 STOT SE 3 _ H336



MATERIAL SAFETY DATA SHEET (MSDS) 1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

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	: 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	: Specific treatment (see on this label). Wash contaminated clothing before reuse. Remove/Take off immediately all contaminated clothing. Get medical advice. If skin irritation occurs : Wash with plenty of soap and water.
Eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Ingestion	: Obtain emergency medical attention. Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell.
4.2. Most important symptoms and e	ffects, both acute and delayed
Symptoms relating to use	: Swallowing a small quantity of this material will result in serious health hazard. Causes serious eye damage. Causes skin irritation. May cause respiratory irritation. May cause drowsiness or dizziness.
4.3. Indication of any immediate med	lical 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	e 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.



MATERIAL SAFETY DATA SHEET (MSDS)

1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

5. Fire-fighting measures (continued)

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. Avoid breathing dust, fume, gas, mist, vapours, spray.	
Technical measures	: Use special care to avoid static electric charges.	
Special precautions	: Remove ignition sources. No naked lights. No smoking.	
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. Store away from other materials. Collect spillage.	

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage 7.1. Precautions for safe handling

Handling	: Handle empty containers with care because residual vapours are flammable. Wash thoroughly after handling. Wash thoroughly after handling. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
Technical protective measures	Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use only non-sparking tools. Use explosion-proof electrical, ventilating, lighting,, equipment.
Special precautions	: No naked lights. No smoking. Avoid breathing dust, fume, gas, mist, vapours, spray.

OM SHREE GANESHYA NAMAH



CHAITANYA CHS, 2nd FLOOR, OFFICE # 206, SIDDHARTH NAGAR, S.V.ROAD, GOREGAON (W), MUMBAł 400062, MH, INDIA. CONTACT: +9122 28725393 /94/ 95 | EMAILID: CARE@SUVCHEM.COM

MATERIAL SAFETY DATA SHEET (MSDS) 1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

7. Handling and storage (continued)

7.2. Conditions for safe storage, including any incompatibilities

Storage	: Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Keep container tightly closed. Ground/bond container and receiving equipment.
Storage - away from	: Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.
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 	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
 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.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Liquid.
Colour	: Clear Colorless
Odour	: Strong characteristic,
Odour threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: -90 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 3430C



MATERIAL SAFETY DATA SHEET (MSDS) 1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

9. Physical and chemical properties (continued)

Flammability (solid, gas)	: Flammable. Flammable liquid and vapour.
Flash point [°C]	: 35 °C
Boiling point [°C]	: 116 - 118 °C
Initial boiling point [°C]	: 116 °C
Final boiling point [°C]	: 118 °C
Evaporation rate	: 0,46
Vapour pressure [20°C]	: 5 hPa at 20 °C
Vapour pressure mm/Hg	: N/A
Vapour density	: 2,56
Density [g/cm3]	: 0,81
Relative density, gas (air=1)	: 0,81
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 [mm2/s]	: N/A
9.2. Other information	
Explosive properties	: N/A
Explosion limits - upper [%]	: 11,20%
Explosion limits - lower [%]	: 1,40%
Oxidising properties	: No data available.

10. Stability and reactivity

<u>10.1. Reactivity</u>		
Reactivity	: Not established.	
10.2. Chemical stability		
Chemical stability	: Stable under recommended storage conditions.	
10.3. Possibility of hazardous reactions		
Hazardous reactions	: Not established.	
10.4. Conditions to avoid		



MATERIAL SAFETY DATA SHEET (MSDS) 1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

10. Stability and reactivity (continued)		
Conditions to avoid	: Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.	
10.5. Incompatible materials		
Materials to avoid	: Strong acids. Strong bases.	
10.6. Hazardous decomposition products		
Hazardous decomposition products	: Fumes. Carbon monoxide. Carbon dioxide. May release flammable gases.	

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	
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	: Causes serious eye damage.
Irritation	: Causes skin irritation. May cause respiratory irritation.
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

<u>12.1. Toxicity</u>	
Toxicity information	: Not established.
<u> 12.2. Persistence - degradability</u>	
Persistence - degradability	: Biodegradable.
12.3. Bioaccumulative potential	



MATERIAL SAFETY DATA SHEET (MSDS) 1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

12. Ecological information (continued)		
Bioaccumulative potential	: Not established.	
<u>12.4. Mobility in soil</u>		
Mobility in soil	: Not established.	
12.5. Results of PBT and vPvB assessment		
Results of PBT and vPvB assessmen	t : 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. 	
Special precautions	: Handle empty containers with care because residual vapours are flammable.	
14. Transport information		

<u>14.1. Land transport (ADR-RID)</u>	
Proper shipping name UN N° H.I. nr ADR - Class Labelling - Transport	: BUTANOLS : 1120 : 30 : 3 : 3 : Flammable liquid.
ADR - Classification code ADR - Group	: F1 F1 F1 : III



MATERIAL SAFETY DATA SHEET (MSDS) 1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

14. Transport information (continued)

ADR - Packing instructions
ADR - Limited Quantity
ADR - Tunnel code

: P001 R001 LP001



: D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only]

Proper shipping name	: BUTANOLS
UN N°	: 1120
IMO-IMDG - Class or division	: 3 : Flammable liquid.
IMO-IMDG - Packing group	: 111
IMO- IMDG - Packing instructions	: P001 LP01
IMO-IMDG - Limited quantities	: 5 L
IMO-IMDG - Marine pollution	: No
EMS-Nr	: F-E S-D

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

Proper shipping name UN N°	: BUTANOLS : 1120
IATA - Class or division	: 3 : Flammable liquid.
IATA - Packing group	: 111
IATA - Passenger and Cargo Aircraft	: ALLOWED
- Passenger and Cargo - Packing instruction	: 355
- Passenger and Cargo - Maximum Quantity/Packing	: 60 L
IATA - Cargo only	: ALLOWED
- Cargo only - Packing instruction	: 366
- Cargo only - Maximum Quantity/ Packing	: 220 L
IATA - Limited Quantites	: 10 L
ERG-Nr	: 3L

15. Regulatory information

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



MATERIAL SAFETY DATA SHEET (MSDS)

1-BUTANOL LR (n-BUTYL ALCOHOL) (BUTAN-1-OL)

In accordance with REACH Regulation (CE) Nº 1907/2006 and with CLP Regulation (CE) Nº 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.

End of document