

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BUTAN-2-OL 99% FOR SYNTHESIS

CAS-No.: 78-92-2

Product Code: 00556

Molecular Formula: $C_4H_{10}O$

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BUTAN-2-OL 99% FOR SYNTHESIS

CAS-No.: 78-92-2

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

1.1. Product identifier

Product form	:	Substance
Trade name	:	Butan-2-ol 99% For Synthesis
EC-No.	:	201-158-5
CAS No	:	78-92-2
Synonyms	:	sec-Butyl alcohol/2-Butanol

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company : Chemnovo Synthesis Pvt Ltd.
N-226 Near Kumbhavali Naka
Tarapur MIDC, Boisar-401 506
Palghar, Maharashtra
Telephone : +91 7400096089
Email: export@chemnovo.in

1.4. Emergency telephone number

Emergency number : + 91 7400096089 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, H226

Category 3

Serious eye damage/eye H319

irritation, Category 2

Specific target organ H335

toxicity – Single

exposure, Category 3,

Respiratory tract irritation

Specific target organ H336

toxicity – Single

exposure, Category 3,

Narcosis

Full text of classification categories and H statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BUTAN-2-OL 99% FOR SYNTHESIS

CAS-No.: 78-92-2

Xi; R36

Xi; R37

R10

R67

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H226 - Flammable liquid and vapour

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

Precautionary statements (CLP) :

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Butan-2-ol 99% For Synthesis

CAS-No. : 78-92-2

EC-No. : 201-158-5

Full text of R- and H-statements: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	:	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
First-aid measures after eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	:	Rinse mouth out with water. If you feel unwell, seek medical advice.

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

Symptoms/injuries after inhalation	:	May cause respiratory irritation. May cause drowsiness or dizziness.
Symptoms/injuries after eye contact	:	Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media	:	dry chemical powder, alcohol-resistant foam, carbon dioxide (Co ₂).
Unsuitable extinguishing media	:	Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	Flammable liquid and vapour.
Explosion hazard	:	May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighter

Protection during firefighting	:	Do not attempt to take action without suitable protective equipment.
--------------------------------	---	--

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

General measures	:	Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
------------------	---	---

6.1.1. For non-emergency personnel

Emergency procedures	:	Evacuate unnecessary personnel.
----------------------	---	---------------------------------

6.1.2. For emergency responders

Protective equipment	:	Avoid breathing dust/fume/gas/mist/vapours/spray.
Emergency procedures	:	Stop release.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	:	Collect spillage. On land, sweep or shovel into suitable containers.
-------------------------	---	--

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BUTAN-2-OL 99% FOR SYNTHESIS

CAS-No.: 78-92-2

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	:	Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling	:	No naked lights. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.
Hygiene measures	:	Wash ... thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment.
Storage conditions	:	Keep container tightly closed. Store in original container. Store in a dry place.
Incompatible materials	:	Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection	:	protective gloves
Eye protection	:	Chemical goggles or safety glasses
Skin and body protection	:	Wear suitable protective clothing
Respiratory protection	:	Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Molecular mass	:	74.12 g/mol
Colour	:	Clear Colorless.
Odour	:	sweet, fruity odor.
Odour threshold	:	3.2 ppm
pH	:	7
Relative evaporation rate (butylacetate=1)	:	No data available

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BUTAN-2-OL 99% FOR SYNTHESIS

CAS-No.: 78-92-2

Melting point	:	-115 °C
Freezing point	:	No data available
Boiling point	:	99.5 °C
Flash point	:	24 °C
Auto-ignition temperature	:	4050 °C
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Flammable Flammable liquid and vapour
Vapour pressure	:	12 mm Hg at 20C
Relative vapour density at 20 °C	:	2.6
Relative density	:	No data available
Density	:	0.808 g/cm ³
Solubility	:	Water: 12.5 g/100ml @ 20°C
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	3.5 cP @ 20 deg C
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	0.017 - 0.098 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Not classified
Skin corrosion/irritation	:	Not classified
pH	:	7

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BUTAN-2-OL 99% FOR SYNTHESIS

CAS-No.: 78-92-2

Serious eye damage/irritation	:	Causes serious eye irritation.
pH	:	7
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	May cause respiratory irritation. May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified

BUTAN-2-OL 99% FOR SYNTHESIS (78-92-2)	
Viscosity, kinematic	4.33168317 mm ² /s

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations	:	Dispose of contents/container to ...
Additional information	:	Handle empty containers with care because residual vapours are flammable.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / AND

14.1. UN number

UN-No. (ADR)	:	1120
UN-No. (IMDG)	:	1120

MATERIAL SAFETY DATA SHEET (SDS/MSDS)**BUTAN-2-OL 99% FOR SYNTHESIS****CAS-No.: 78-92-2**

UN-No.(IATA) : 1120
UN-No.(AND) : 1120
UN-No. (RID) : 1120

14.2. UN proper shipping name

Proper Shipping Name (ADR) : BUTANOLS
Proper Shipping Name (IMDG) : BUTANOLS
Proper Shipping Name (IATA) : BUTANOLS
Proper Shipping Name (ADN) : BUTANOLS
Proper Shipping Name (RID) : BUTANOLS
Transport document description (ADR): UN 1120 BUTANOLS, 3, III, (D/E)
Transport document description (IMDG) UN 1120 BUTANOLS, 3, III, (D/E)
Transport document description (IATA) : UN 1120 BUTANOLS, 3, III
Transport document description (ADN) : UN 1120 BUTANOLS, 3, III
Transport document description (RID) : UN 1120 BUTANOLS, 3, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3
Danger labels (ADR) : 3



IMDG

Transport hazard class(es) (IMDG) : 3
Danger labels (IMDG) : 3



IATA

Transport hazard class(es) (IATA) : 3
Hazard labels (IATA) : 3

MATERIAL SAFETY DATA SHEET (SDS/MSDS)**BUTAN-2-OL 99% FOR SYNTHESIS****CAS-No.: 78-92-2**

: :



AND

Transport hazard class(es) (ADN) : 3

Danger labels (AND) : 3

: :



RID

Transport hazard class(es) (RID) : 3

Danger labels (RID) : 3

: :

**14.4. Packing group**

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : F1

Limited quantities (ADR) : 5L

Excepted quantities (ADR) : E1

MATERIAL SAFETY DATA SHEET (SDS/MSDS)**BUTAN-2-OL 99% FOR SYNTHESIS****CAS-No.: 78-92-2**

Packing instructions (ADR)	:	P001, IBC03, LP01, R001		
Mixed packing provisions (ADR)	:	Mp19		
Portable tank and bulk container instructions (ADR)	:	T2		
Portable tank and bulk container special provisions (ADR)	:	Tp1		
Tank code (ADR)	:	LGBF		
Vehicle for tank carriage	:	FL		
Transport category (ADR)	:	3		
Special provisions for carriage – Packages (ADR)	:	V12		
Special provisions for carriage – Operation (ADR)	:	S2		
Hazard identification number (Kemler No.)	:	30		
Orange plates	:	<table border="1"><tr><td>30</td></tr><tr><td>1120</td></tr></table>	30	1120
30				
1120				
Tunnel restriction code (ADR)	:	D/E		
EAC code	:	•2YE		
- Transport by sea	:			
Special provision (IMDG)	:	223		
Limited quantities (IMDG)	:	5 L		
Excepted quantities (IMDG)	:	E1		
Packing instructions (IMDG)	:	P001, Lp01		
IBC packing instructions (IMDG)	:	IBC03		
Tank instructions (IMDG)	:	T2		
Tank special provisions (IMDG)	:	Tp1		
EmS-No. (Fire)	:	F-E		
EmS-No. (Spillage)	:	S-D		
Stowage category (IMDG)	:	A		
MFAG-No	:	129		
- Air transport	:			
PCA Excepted quantities (IATA)	:	E1		
PCA Limited quantities (IATA)	:	Y344		
PCA limited quantity max net quantity (IATA)	:	10L		
PCA packing instructions (IATA)	:	355		
PCA max net quantity (IATA)	:	60L		
CAO packing instructions (IATA)	:	366		
CAO max net quantity (IATA)	:	220L		

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BUTAN-2-OL 99% FOR SYNTHESIS

CAS-No.: 78-92-2

Special provision (IATA)	:	A3
ERG code (IATA)	:	3L
- Inland waterway transport		
Classification code (ADN)	:	F1
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Carriage permitted (AND)	:	T
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	Ve01
Number of blue cones/lights (ADN)	:	0
- Rail transport		
Classification code (RID)	:	F1
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Mixed packing provisions (RID)	:	Mp19
Portable tank and bulk container instructions (RID)	:	T2
Portable tank and bulk container special provisions (RID)	:	Tp1
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W12
Colis express (express parcels) (RID)	:	Ce4
Hazard identification number (RID)	:	30

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Butan-2-ol 99% For Synthesis is not on the REACH Candidate List

Butan-2-ol 99% For Synthesis is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 2; WGK No 40)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BUTAN-2-OL 99% FOR SYNTHESIS

CAS-No.: 78-92-2

Denmark

Class for fire hazard	:	Class II-1
Store unit	:	5 liter
Classification remarks	:	R10 <H226;H319;H335;H336>; Emerg
Recommendations Danish Regulation	:	Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis
H226	Flammable liquid and vapour
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
R10	Flammable
R36	Irritating to eyes
R37	Irritating to respiratory system
R67	Vapours may cause drowsiness and dizziness
Xi	Irritant

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Chemnovo Synthesis Pvt Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.chemnovo.in for additional terms and conditions of sale.

Version: 2.0
Revision Date: 31 January 2026