Material Safety Data Sheet

BUTAN -2-OL- LR 99 SEC BUTYL ALCOHOL (RXSOL-60-6604-119)

1. Product and Company Identifaction

Product Name	RXSOL-60-6604-119
Product Type	BUTAN -2-OL- LR 99% (SEC BUTYL ALCOHOL)
Revised date	

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Stock Point : Mumbai, Kandla, Chennai, Visakhapatnam, Kolkata, Fujairah, Muscat Barka

Phone	+91 22 27815541 / 42
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Email	mail@rxmarine.com

2. Composition / informationon ingredients

2.1. Substance : Butan-2-Ol
CAS No : 78-92-2
Substance.
Contains no other components or impurities which will influence the classification of the product.

3. Hazards Identification

3.1. 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 toxicity — Single H335 exposure,
Category 3,
Respiratory tract irritation Specific target organ toxicity — Single H336 exposure,
Category 3,
Narcosis Classification according to Directive 67/548/EEC or 1999/45/EC
Adverse physicochemical, human health and environmental effects
No additional information available
3.2. Label elements Labelling
according to Regulation (EC) No. 1272/2008 [CLP]
Extra labelling to displayExtra classification(s) to display
Symbol(s) : Highly flammable
Xi : Irritation.
R Phrase(s):R10 : Flammable.
R36/37 Irritating to eyes and respiratory system
R67: Vapours may cause drowsiness and dizziness.
S Phrase(s) :S7/9 : Keep container tightly closed and in a well ventilated place.
S13: Keep away from food., drink and animal feeding stuffs.
S24/25 : Avoid contact with skin and eyes.
S26 : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advise.
S46: If swallowed seek medical advice immediately and show this container or label.
Hazard pictograms



Signal word : Warning
Hazard statements : H226 - Flammable liquid and vapour
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizzines
Precautionary statements : 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
3.3. Other hazards
No additional information available

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.

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

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 naked lights. 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.
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

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. U
se 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

8. Exposure controls and 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

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties
Odour threshold : 3.2 ppm
pH : 7
Relative evaporation rate (butylacetate=1) : No data available
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/cm³
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

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.

11. Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified
Skin corrosion/irritation : Not classified
pH: 7
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
Viscosity, kinematic 4.33168317 mm^2/s

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

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.

14. Transport information

In accordance with ADR / RID / IMDG / IATA / ADN
14.1. UN number
UN-No. (ADR) : 1120
UN-No. (IMDG) : 1120
UN-No.(IATA) : 1120
UN-No.(ADN) : 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
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
AND : Transport hazard class(es) (ADN) : 3
Danger labels (ADN) : 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
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 : 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
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 (ADN) : 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

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 is not on the REACH Candidate List
BUTAN-2-OL 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. BlmSchV (Hazardous Incident Ordinance)
Denmark
Class for fire hazard : Class II-1 Store unit : 5 liter
Classification remarks : R10 ; Emergency management guidelines for the storage of flammable liquids must be followed 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

16. Other information

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
Further information : None.
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