Material Safety Data Sheet

EPICHLOROHYDRIN (RXSOL-19-1165-025)

1. Product and Company Identifaction

Product Name	RXSOL-19-1165-025
Product Type	EPICHLOROHYDRIN

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, Nairobi

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

2. Composition / informationon ingredients

2.1. Substances: EPICHLOROHYDRIN FOR SYNTHESIS
CAS-No. : 106-89-8
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]
Carcinogenicity, H350
Category 1B
Acute toxicity (dermal), H311
Category 3
Acute toxicity (inhal.), H331
Category 3
Acute toxicity (oral), H301
Category 3
Skin corrosion/irritation, H314
Category 1B
Serious eye damage/eye irritation, H318
Category 1
Flammable liquids, H226
Category 3
Skin sensitisation, H317
Category 1
Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
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) : T : Very toxic
Highly flammable C: Corrosive
Xn: Harmful

R Phrase(s) : R45: May cause cancer.
R10: Flammable.
R34: Cause burns.
R43: May cause sensitization by skin contact.
R23/24/25: Toxic by Inhalation, in contact with skin and if swallowed.
S Phrase(s) : S53: Avoid exposure – obtain special instruction before use.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Hazard pictograms :

Signal word : Danger
Hazard statements : H226 - Flammable liquid and vapour.
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H350 - May cause cancer.
Precautionary statements : P201 - Obtain special instructions before use.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor
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 person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact : Take off immediately all contaminated clothing.

Rinse skin with water/shower.
Immediately call a POISON CENTER/doctor. Wash with plenty of water/…. Specific measures (see supplemental first aid instruction on this label). Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Specific treatment (see supplemental first aid instruction on this label).
First-aid measures after 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/doctor.
First-aid measures after ingestion : Rinse mouth. Immediately call a POISON CENTER/doctor. Specific treatment (see supplemental first aid instruction on this label).
Do NOT induce vomiting.
4.2. Most important symptoms and effects, both acute and delayed
Symptoms/effects : Causes severe skin burns and eye damage. May cause cancer.
Symptoms/effects after inhalation : May cause an allergic skin reaction.
Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : Toxic if swallowed. 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
Treat symptomatically.

5. Fire-fighting Measures

5.1. Extinguishing media
Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). 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
No additional information available

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 : Use personal protective equipment as required.
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 open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid breathing dust/fume/gas/mist/vapours/spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.
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. Comply with applicable regulations.
Storage conditions : Keep container tightly closed. Store in original container. Store in a dry place. Protect from moisture.
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 face shield
Skin and body protection : Wear suitable protective clothing
Respiratory protection : [In case of inadequate ventilation] wear respiratory protection.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : -57 °C
Freezing point : No data available
Boiling point : 115 - 117
Flash point : 32 °C
Auto-ignition temperature : 4160 °C
Decomposition temperature : No data available
Flammability (solid, gas) : Flammable liquid and vapour.
Vapour pressure : 12.5 mm Hg at 200C
Relative vapour density at 20 °C : 3.3
Relative density : No data available
Density : 1.18 g/cm³
Solubility : Water: Moderate (1-10%)
Log Pow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : 0.038 - 0.21 vol %
9.2. Other information
No additional information available

10. Stability and reactivity

10.1. Reactivity
Thermal decomposition generates : Corrosive vapours.
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. Thermal decomposition generates : Corrosive vapours.

11. Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Dermal: Toxic in contact with skin.
Inhalation: Toxic if inhaled. Oral: Toxic if swallowed.
Skin corrosion/irritation : Causes severe skin burns and eye damage.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : May cause cancer.
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Potential adverse human health effects and symptoms : Toxic if swallowed. Toxic in contact with skin.

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 hazardous or special waste collection point, in
accordance with local, regional, national and/or international regulation.
Additional information : Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials : Hazardous waste due to toxicity.

14. Transport information

In accordance with ADR / RID / IMDG / IATA / ADN
14.1. UN number
UN-No. (ADR) : 2023
UN-No. (IMDG) : 2023
UN-No. (IATA) : 2023
UN-No. (ADN) : 2023
UN-No. (RID) : 2023
14.2. UN proper shipping name
Proper Shipping Name (ADR) : EPICHLOROHYDRIN
Proper Shipping Name (IMDG) : EPICHLOROHYDRIN

Proper Shipping Name (IATA) : Epichlorohydrin
Proper Shipping Name (ADN) : EPICHLOROHYDRIN
Proper Shipping Name (RID) : EPICHLOROHYDRIN
Transport document description (ADR) : UN 2023 EPICHLOROHYDRIN, 6.1 (3), II, (D/E)
Transport document description (IMDG) : UN 2023 EPICHLOROHYDRIN, 6.1 (3), II, MARINE POLLUTANT (32°C c.c.)
Transport document description (IATA) : UN 2023 Epichlorohydrin, 6.1, II
Transport document description (ADN) : UN 2023 EPICHLOROHYDRIN, 6.1 (3), II
Transport document description (RID) : UN 2023 EPICHLOROHYDRIN, 6.1 (3), II
14.3. Transport hazard class(es)
ADR- Transport hazard class(es) (ADR) : 6.1 (3)
Danger labels (ADR) : 6.1, 3
IMDG- Transport hazard class(es) (IMDG) : 6.1 (3)
Danger labels (IMDG) : 6.1, 3
IATA- Transport hazard class(es) (IATA) : 6.1 (3)
Hazard labels (IATA) : 6.1, 3
ADN- Transport hazard class(es) (ADN) : 6.1 (3)
Danger labels (ADN) : 6.1, 3
RID- Transport hazard class(es) (RID) : 6.1 (3)
Danger labels (RID) : 6.1, 3
14.4. Packing group
Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II
14.5. Environmental hazards
Dangerous for the environment : No
Marine pollutant : Yes (IMDG only)
Other information : No supplementary information available
14.6. Special precautions for user
Overland transport- Classification code (ADR) : TF1
Special provisions (ADR) : 279
Limited quantities (ADR) : 100ml
Excepted quantities (ADR) : E4
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T7
Portable tank and bulk container special provisions (ADR) : TP2
Tank code (ADR) : L4BH Tank special provisions (ADR) : TU15, TE19
Vehicle for tank carriage : FL Transport category (ADR) : 2
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13, CV28
Special provisions for carriage – Operation (ADR) : S2, S9, S19
Hazard identification number (Kemler No.) : 63
Orange plates :
Tunnel restriction code (ADR) : D/E
EAC code : •3W
APP code : A(fl)
Transport by sea- Special provisions (IMDG) : 279
Limited quantities (IMDG) : 100 ml
Excepted quantities (IMDG) : E4
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP2, TP13
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-D
Stowage category (IMDG) : A
Stowage and handling (IMDG) : SW2
Flash point (IMDG) : approximately 32°C c.c.
MFAG-No : 131P
Air transport- PCA Excepted quantities (IATA) : E4
PCA Limited quantities (IATA) : Y641
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 654
PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 662
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A113
ERG code (IATA) : 6F
Inland waterway transport- Classification code (ADN) : TF1
Special provisions (ADN) : 279, 802
Limited quantities (ADN) : 100 ml
Excepted quantities (ADN) : E4

Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP, EX, TOX, A
Ventilation (ADN) : VE01, VE02
Number of blue cones/lights (ADN) : 2
Rail transport- Classification code (RID) : TF1
Special provisions (RID) : 279
Limited quantities (RID) : 100ml
Excepted quantities (RID) : E4
Packing instructions (RID) : P001, IBC02
Mixed packing provisions (RID) : MP15
Portable tank and bulk container instructions (RID) : T7
Portable tank and bulk container special provisions (RID) : TP2
Tank codes for RID tanks (RID) : L4BH
Special provisions for RID tanks (RID) : TU15
Transport category (RID) : 2
Special provisions for carriage - Loading,
unloading and handling (RID) : CW13, CW28, CW31
Colis express (express parcels) (RID) : CE5
Hazard identification number (RID) : 63
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
EPICHLOROHYDRIN AR is not on the REACH Candidate List
EPICHLOROHYDRIN AR is not on the REACH Annex XIV List
15.1.2. National regulations
Germany
Reference to AwSV : Water hazard class (WGK) 3, severe hazard to water (Classification
according to AwSV; ID No. 92)
12th Ordinance Implementing the Federal
Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous
Incident Ordinance)
Netherlands
SZW-lijst van kankerverwekkende stoffen : EPICHLOROHYDRIN FOR SYNTHESIS is listed
SZW-lijst van mutagene stoffen : The substance is not listed
NIET-limitatieve lijst van voor de
voortplanting giftige stoffen – Borstvoeding : The substance is not listed
NIET-limitatieve lijst van voor de
voortplanting giftige stoffen –
Vruchtbaarheid : The substance is not listed
NIET-limitatieve lijst van voor de
voortplanting giftige stoffen – Ontwikkeling : The substance is not listed
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
Pregnant/breastfeeding women working with the product must not be in direct
contact with the product
The requirements from the Danish Working Environment Authorities regarding work
with carcinogens must be followed during use and disposal
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.
In accordance with REACH Regulation (CE) Nº 1907/2006 and with CLP Regulation (CE) Nº 1272/2008
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