Material Safety Data Sheet

DI N BUTYLAMINE FOR SYNTHESIS (RXSOL-60-6604-479)

1. Product and Company Identifaction

Product Name	RXSOL-60-6604-479
Product Type	DI-N-BUTYLAMINE FOR SYNTHESIS
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. Substances : DI-N-BUTYLAMINE FOR SYNTHESIS
CAS-No. : 111-92-2
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, H225
Category 2
Acute toxicity (oral), H302
Category 4
Acute toxicity (dermal), H312
Category 4
Acute toxicity (inhal.), H332
Category 4
Skin corrosion/irritation, H314
Category 1A
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) : Xi : Irritation
Xn: Harmful
Highly flammable

R Phrase(s) : R10: Flammable.
R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
Hazard pictograms :

Signal word : Danger
Hazard statements : H225 - Highly flammable liquid and vapour.
H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
H314 - Causes severe skin burns and eye damage.
Precautionary statements : P210 - Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
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 or doctor.
3.3. Other hazards
No additional information available
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4. First Aid Measures

4.1. Description of first aid measures
First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact : Take off immediately all contaminated clothing. Immediately call a POISON CENTER/doctor. Wash with plenty of water/….
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.
4.2. Most important symptoms and effects, both acute and delayed
Symptoms/effects : Causes severe skin burns and eye damage.
Symptoms/effects after inhalation : Harmful if inhaled.
Symptoms/effects after skin contact : Harmful in contact with skin.
Symptoms/effects after ingestion : Harmful if swallowed.
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 : Carbon dioxide. Dry powder. Water spray. Foam.
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 enter fire area without proper protective equipment, including respiratory protection.

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 : Ventilate area.
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.
6.4. Reference to other sections
No additional information available

7. Handling and Storage

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling : Avoid contact with skin and eyes. Take precautionary measures against static discharge. Use only non-sparking tools. Keep away from sources of ignition – No smoking. Do not breathe vapours.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
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. Keep in fireproof 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 : [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 : 11.1 at 1 g/l at 20 °C
Relative evaporation rate (butylacetate=1) : No data available
Melting point : -62 °C
Freezing point : No data available
Boiling point : 159 °C
Flash point : 40 °C
Auto-ignition temperature : 260 °C
Decomposition temperature : No data available
Flammability (solid, gas) : Flammable liquid and vapour.
Vapour pressure : 2.5 hPa at 20 °C
Relative vapour density at 20 °C : 4.5
Relative density : No data available
Density : 0.76 g/cm³ Solubility : Water: 4.05 g/l (25°C)
Log Pow : 2.06 Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : 0.006 - 0.068 vol %
9.2. Other information
No additional information available

10. Stability and reactivity

10.1. Reactivity
No additional information available
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No additional information available
10.4. Conditions to avoid Open flame. 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 : Oral: Harmful if swallowed.
Dermal: Harmful in contact with skin.
Inhalation: Harmful if inhaled.
Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: 11.1 at 1 g/l at 20 °C
Serious eye damage/irritation : Serious eye damage, category 1, implicit
pH: 11.1 at 1 g/l at 20 °C

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
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 : Harmful if swallowed. Harmful 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
Log Pow 2.06
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.

14. Transport information

In accordance with ADR / RID / IMDG / IATA / ADN
14.1. UN number
UN-No. (ADR) : 2248
UN-No. (IMDG) : 2248
UN-No. (IATA) : 2248
UN-No. (ADN) : 2248
UN-No. (RID) : 2248
14.2. UN proper shipping name
Proper Shipping Name (ADR) : DI-N-BUTYLAMINE
Proper Shipping Name (IMDG) : DI-n-BUTYLAMINE
Proper Shipping Name (IATA) : Di-n-butylamine
Proper Shipping Name (ADN) : DI-N-BUTYLAMINE
Proper Shipping Name (RID) : DI-n-BUTYLAMINE
Transport document description (ADR) : UN 2248 DI-N-BUTYLAMINE, 8 (3), II, (D/E)
Transport document description (IMDG) : UN 2248 DI-n-BUTYLAMINE, 8 (3), II (39°C c.c.)
Transport document description (IATA) : UN 2248 Di-n-butylamine, 8 (3), II
Transport document description (ADN) : UN 2248 DI-N-BUTYLAMINE, 8 (3), II
Transport document description (RID) : UN 2248 DI-n-BUTYLAMINE, 8 (3), II
14.3. Transport hazard class(es)
ADR- Transport hazard class(es) (ADR) : 8 (3)
Danger labels (ADR) : 8, 3
IMDG- Transport hazard class(es) (IMDG) : 8 (3)
Danger labels (IMDG) : 8, 3
IATA- Transport hazard class(es) (IATA) : 8 (3)
Hazard labels (IATA) : 8, 3
ADN- Transport hazard class(es) (ADN) : 8 (3)
Danger labels (ADN) : 8, 3
RID- Transport hazard class(es) (RID) : 8 (3)
Danger labels (RID) : 8, 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 : No
Other information : No supplementary information available
14.6. Special precautions for user
Overland transport- Classification code (ADR) : CF1
Limited quantities (ADR) : 1l
Excepted quantities (ADR) : E2
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) : L4BN
Vehicle for tank carriage : FL
Transport category (ADR) : 2
Special provisions for carriage – Operation (ADR) : S2
Hazard identification number (Kemler No.) : 83
Orange plates :
Tunnel restriction code (ADR) : D/E
EAC code : •3W
APP code : A(fl)
Transport by sea- Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP2
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-C
Stowage category (IMDG) : A
Flash point (IMDG) : 39°C c.c.
MFAG-No : 132
Air transport- PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y840
PCA limited quantity max net quantity (IATA) : 0.5L
PCA packing instructions (IATA) : 851
PCA max net quantity (IATA) : 1L
CAO packing instructions (IATA) : 855
CAO max net quantity (IATA) : 30L
ERG code (IATA) : 8F
Inland waterway transport- Classification code (ADN) : CF1
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 1
Rail transport- Classification code (RID) : CF1
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
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) : L4BN
Transport category (RID) : 2
Colis express (express parcels) (RID) : CE6
Hazard identification number (RID) : 83
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
DI-N-BUTYLAMINE FOR SYNTHESIS is not on the REACH Candidate List
DI-N-BUTYLAMINE FOR SYNTHESIS is not on the REACH Annex XIV List
15.1.2. National regulations
Germany
Reference to AwSV : Water hazard class (WGK) 1, low hazard to water (Classification

according to AwSV; ID No. 593)
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 : The substance is not 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
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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