

1. Product and Company Identification

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Product Name RXSOL-60-6605-662
Product Type tert -BUTYLAMINE FOR SYNTHESIS 99%
Revised date

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / Information on ingredients

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3.1 Substances : tert  BUTYLAMINE FOR SYNTHESIS 99%

Substance / Preparation : 2-Amino-2-methylpropane

CAS-No. : 75-64-9

Substance name	Contents	CAS No
tert-Butylamine	100%	75-64-9

Substance.

Contains no other components or impurities which will influence the classification of the product.

3. Hazards Identification

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3.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225 Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 3), H331 Skin corrosion (Category 1A), H314

Chronic aquatic toxicity (Category 3), H412

3.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Symbol(s) : R Phrase(s) :R11 : Highly flammable.

R20/22 : Harmful by inhalation and if swallowed.

R35 : Cause severe burns.

S Phrase(s) : S16 : Keep away from source of ignition-No smoking.

S26 : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 : Wear suitable protective clothing and gloves & eye/face protecting.

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 statement(s) H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled.

H412 Harmful to aquatic life with long lasting effects. Precautionary statement(s)

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.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed. Supplemental Hazard Statements none

3.3 Other hazards

This substance/mixture contains no components considered to be either persistent,

bioaccumulative and toxic (PBT), or very persistent and very

bioaccumulative (vPvB) at levels of 0.1% or higher.

4. First Aid Measures

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4.1 Description of first aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician. In case of skin contact Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water. Take victim immediately to hospital.

Consult a physician. In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes

and consult a physician. If swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Fire-fighting Measures

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5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x)

5.3 Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information Use water spray to cool unopened containers.

6. Accidental Release Measures

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6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations.

Vapours can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum

cleaner or by wet-brushing and place in container for disposal according

to local regulations.

6.4 Reference to other sections

For disposal see section 13.

7. Handling and Storage

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7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place.

Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage

.Handle and store under inert gas. Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section

1.2 no other specific uses are stipulated

8. Exposure controls and personal protection

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8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls Avoid contact with skin, eyes and clothing.

Wash hands before breaks and immediately after handling the product.

Personal protective equipment Eye/face protection Tightly fitting safety goggles.

Faceshield (8-inch minimum). Use equipment for eye protection tested and approved unde

r appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection Handle with gloves. Gloves must be inspected prior to use.

Use proper glove removal technique (without touching glove's outer surface) to avoid

skin contact with this product. Dispose of contaminated gloves after use in accordance

with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. Body Protection Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. Physical and chemical properties

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9.1 Information on basic physical and chemical properties

Odour Threshold: No data available

pH :12,1 at 100 g/l at 25 °C

Melting point/freezing point Melting point/range: -67 °C - lit.

Initial boiling point and boiling range: 46 °C - lit.

Flash point -38 °C - closed cup

Evaporation rate: No data available

Flammability : (solid, gas) No data available

Upper/lower flammability or explosive limits

Upper explosion limit: 9,8 %(V) Lower

explosion limit: 1,7 %(V)

Vapour pressure 392,9 hPa at 20 °C

Vapour density : 2,53 - (Air = 1.0)

Relative density: 0,696 g/cm³ at 25 °C

Water solubility ca.: 1.000 g/l at 25 °C

Partition coefficient: noctanol/ Water

log Pow: 0,4 at 25 °C

Auto-ignition temperature : 380 °C at 1.013 hPa

Decomposition temperature : No data available

Viscosity : No data available

Explosive properties : No data available

Oxidizing properties : No data available

9.2 Other safety information

Relative vapour density 2,53 - (Air = 1.0)

10. Stability and reactivity

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10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid Heat, flames and sparks.

10.5 Incompatible materials

Strong oxidizing agents, Strong acids

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. -

Carbon oxides, Nitrogen oxides (NO_x) Other decomposition products -

No data available In the event of fire: see section 5

11. Toxicological information

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11.1 Information on toxicological effects Acute toxicity

LD50 Oral - Rat - male and female - 464 mg/kg (OECD Test Guideline 401) LC50

Inhalation - Rat - male - 4 h - 3,8 mg/l Skin corrosion/irritation No data available

Serious eye damage/eye irritation Eyes - Rabbit Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation No data available Germ cell mutagenicity Ames test Salmonella

typhimurium Result: negative Carcinogenicity IARC: No component of this product present at levels

greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by

IARC. No component of this product present at levels greater than or equal to 0.1% is identified as probable,

possible or confirmed human carcinogen by IARC. Reproductive toxicity No data available Specific target organ

toxicity - single exposure No data available Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available Additional Information RTECS: EO3330000 Material is extremely destructive

to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache,

Nausea To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

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12.1 Toxicity

Toxicity to fish static test LC50 - Oncorhynchus mykiss

(rainbow trout) - 28 mg/l - 96 h(tert- Butylamine)

Toxicity to algae static test EC50 -

Pseudokirchneriella subcapitata - 16 mg/l - 96 h(tert- Butylamine)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d(tert-Butylamine)

Result: 0 % - Not biodegradable (OECD Test Guideline 301C)

12.3 Bioaccumulative potentia

l Does not bioaccumulate.

12.4 Mobility in soil

No data available(tert-Butylamine)

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be

either persistent, bioaccumulative and toxic (PBT), or very persistent and very

bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Harmful to aquatic life with long lasting effects. No data available

13. Disposal considerations

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13.1 Waste treatment methods

Product Burn in a chemical incinerator equipped with an afterburner

and scrubber but exert extra care in igniting as this material is highly flammable.

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging Dispose of as unused product.

14. Transport information

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14.1 UN number ADR/RID: 2734

IMDG: 2734

IATA: 2734

14.2 UN proper shipping name

ADR/RID: AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (tert-Butylamine)

IMDG: AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (tert-Butylamine)

IATA: Amines, liquid, corrosive, flammable, n.o.s. (tert-Butylamine)

14.3 Transport hazard class(es)

ADR/RID: 8 (3) IMDG: 8 (3) IATA: 8 (3)

14.4 Packaging group

ADR/RID: I IMDG: I IATA: I

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

15. Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

16. Other information

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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) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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