# Material Safety Data Sheet

**SODIUM Tert BUTOXIDE 98%** (RXSOL-60-6605-580)

## 1. Product and Company Identifaction

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| Product Name | SODIUM Tert BUTOXIDE 98% |
| Part Number | RXSOL-60-6605-580 |

Company Details:

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

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE , OMAN , CANADA and KENYA

| | |
|---|---|
| Phone | +91 22 20871200 - 1400 |
| Fax | +91 22 27612100 :::AOH :0091 9821214367 |
| Email | mail@rxmarine.com |
| Website | www.rxmraine.com |


## 2. Composition / informationon ingredients

| Chemical Name | CAS | EC number | Weight | Formula |
|---|---|---|---|---|
| Sodium tert-butoxide | 865-48-5 | 212-741-9 | = 100 % | $C_4H_9NaO$ |

## 3. Hazards Identification

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| Signal Word | Danger |
| Hazard Statements | H228 Flammable solid. H251 Self-heating; may catch fire. 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. P235 Keep cool. P260 Do not breathe dust. 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. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Classification of the substance or mixture | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |
| Supplemental Hazard Statements | EUH014 Reacts violently with water. |
| 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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| General advice | First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance. |
| If inhaled | After inhalation: fresh air. Call in physician. |
| Eye Contact | After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses. |
| Swallowed | After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise. |
| Skin Contact | In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately. |

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| Inhalation | Remove patient to fresh air, keep warm and at rest and get medical assistance in necessary. |
| Ingestion | Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately. |
| Most important symptoms and effects, both acute and delaye | The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 |
| Indication of any immediate medical attention and special treatment needed | No data available |

## 5. Fire-fighting Measures

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| Flammability | May be combustible at high temperature. |
| Suitable extinguishing media | Cement Dry powder Sand |
| Unsuitable extinguishing media | Foam Water |
| Special hazards arising from the substance or mixture | Carbon oxides Sodium oxides Combustible. Vapors are heavier than air and may spread along floors. May not get in touch with: Water Development of hazardous combustion gases or vapours possible in the event of fire. |
| Further information | Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. |
| Hazardous combustion products | Fire may cause the evolution of Sulphur oxides, nitrogen oxides. |
| Advice for firefighters | Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. |
| Protective Equipment | Use personal protective equipment. |
| Specific Hazards Arising from the Chemical | Has a fire-promoting effect due to the release of oxygen.<br>Ambient fire may liberate hazardous vapours. |

## 6. Accidental Release Measures

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| Personal precautions, protective equipment and emergency procedures | Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. |
| Spillage | Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas dike if needed. Eliminate all ignition sources. Call for assistance on disposal. |
| Personal Protection | Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8. |
| Enviromental Precaution | Do not let product enter drains. Risk of explosion. |
| Methods and materials for containment and cleaning | Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts. |

## 7. Handling and Storage

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| Advice on protection against fire and explosion | Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge. |
| Incompatible materials | Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills. |
| Hygiene measures | Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. |
| Precautions for safe handling | Keep workplace dry. Do not allow product to come into contact with water. |
| Conditions for safe storage, including any incompatibilities | Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials. |
| Storage conditions | Tightly closed. Keep away from heat and sources of ignition. Never allow product to get in contact with water during storage.Keep in a dry place. Moisture sensitive. Handle and store under inert gas. |
| Storage class | Storage class (TRGS 510): 4.2: Pyrophoric and self-heating hazardous materials |
| Specific end use(s) | Apart from the uses mentioned in section 1.2 no other specific uses are stipulated |
| Advice on general occupational hygiene | Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance. |
| Requirements for storage | Keep in cool and store under shade. |

## 8. Exposure controls and personal protection

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| Exposure controls | No specific additional engineering controls are required. Provide good natural or artificial ventilation. |
| Engineering Control | Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. |
| Eye/face protection | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles |
| Body Protection | Flame retardant antistatic protective clothing. |
| Skin protection | This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L |
| Respiratory protection | Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P2 The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. |
| Other Protection Measure | Handle in accordance with good industrial hygiene and safety practice. |
| Control of environmental exposure | Do not let product enter drains. Risk of explosion. |

## 9. Physical and chemical properties

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| Physical state | Powder |
| Colour | Beige |
| Odour | No data available |
| Odor Threshold | Not Applicable |
| pH | No data available |
| Melting Point | No data available |
| Boiling Point | No data available |
| Flash Point | 14 °C |
| Evaporation Rate | Not Applicable |
| Flammability (solid, gas) | No data available |
| Explosive limits | No Data Available |
| Upper/lower flammability or explosive limits | 8 %(V) / 2,3 %(V) |
| Autoignition temperature | No data available |
| Decomposition temperature | 300 °C - |
| Viscosity,kinematic | No data available |
| Vapour pressure | 0,000001 hPa at 20 °C - OECD Test Guideline 104 0,0000026 hPa at 50 °C - OECD Test |
| Density | 1,025 g/cm3 at 20 °C - OECD Test Guideline 109 |
| Relative Vapour Density | No data available |
| Freezing point | No data available |
| Specific Gravity | No data available |
| Partition coefficient | No data available |
| Explosive properties | No data available |
| Solubility | No data available |
| Ignition temperature | No information available. |
| Particle characteristics | No data available |

## 10. Stability and reactivity

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| Reactivity | Self-heating; may catch fire. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed. Reacts violently with water. |
| Stability | Sensitive to moisture |
| Possibility of hazardous reactions | Risk of explosion with: Water Possible formation of: Hydrogen Violent reactions possible with: Alkali metals Halogenated hydrocarbon acids The generally known reaction partners of water. |
| Conditions to avoid | Heat, flames and sparks. humidity Air Avoid moisture. Moisture. |
| Incompatible materials | Strong oxidizing agents |
| Hazardous Polymerization | In the event of fire: see section 5 |

## 11. Toxicological information

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| Acute toxicity | Oral: No data available Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract Dermal: No data available |
| Skin corrosion/irritation | Skin - in vitro test Result: Corrosive (OECD Test Guideline 435) |
| Serious eye damage/eye irritation | Causes serious eye damage. |
| Respiratory or skin sensitization | Buehler Test - Guinea pig Result: positive (OECD Test Guideline 406) |
| Carcinogenicity | No data available |
| Germ cell mutagenicity | Species: Rat Application Route: Inhalation Remarks: Cytogenetic analysis |
| Reproductive toxicity | No data available |
| Specific target organ toxicity - single exposure | Inhalation - May cause respiratory irritation. - Lungs Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) |
| Special Remarks on other Toxi Effects on Humans | Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reation, which becomes evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health Effects: Repeated or prolonged skin exposure may cause allergic reactions in sensitive individuals. Repeated or prolonged exposure by inhalation may affect respiration and metabolism. |
| Additional Information | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the bronchi To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |

## 12. Ecological information

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| Persistence and degradability | No data available |
| Bioaccumulative potential | No data available |
| Toxicity to fish | LC50 - Oncorhynchus mykiss (rainbow trout) - 7.300 mg/l - 48 h Remarks: (ECOTOX Database) |
| Toxicity to daphnia and other aquatic invertebrates | Static test - Daphnia magna (Water flea) - > 163 mg/l - 48 h (OECD Test Guideline 202) |
| Toxicity to algae | Static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 17,7 mg/l - 72 h (OECD Test Guideline 201) Remarks: The value is given in analogy to the following substances: Sodium tungstate static test EC10 - Pseudokirchneriella subcapitata (green algae) - 5,76 mg/l - 72 h (OECD Test Guideline 201) Remarks: The value is given in analogy to the following substances: Sodium tungstate |
| Toxicity to bacteria | Static test - activated sludge - > 1.000 mg/l - 30 min (OECD Test Guideline 209) |
| Mobility in soil | No Information available |
| 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. |

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| Endocrine disrupting properties | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Other adverse effects | We have no quantitative data concerning the ecological effects of this product. Biological effects: Harmful effect due to pH shift. Further information on ecology Discharge into the environment must be avoided. |

## 13. Disposal considerations

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| Disposal methods | The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems. |
| Contaminated packaging | Dispose of as unused product. |
| Waste treatment Method | No data available |

## 14. Transport information

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| UN number | ADR/RID: 3206 IMDG: 3206 IATA:3206 |
| UN proper shipping name | ADR/RID:Alkali metal alcoholates, self-heating, corrosive, n.o.s. (sodium-tert-butylate)<br>IMDG:Alkali metal alcoholates, self-heating, corrosive, n.o.s. (sodium-tert-butylate)<br>IATA:Alkali metal alcoholates, self-heating, corrosive, n.o.s. (sodium-tert-butylate) |
| Transport hazard class(es) | ADR/RID: 4.2 (8) IMDG:4.2 (8) IATA: 4.2 (8) |
| Packaging group | ADR/RID: II IMDG: II IATA:II |
| Environmental hazards | ADR/RID: No IMDG: No IATA: No |
| Special precautions for user | Tunnel restriction code : (C/E) |
| Further information | Not classified as dangerous in the meaning of transport regulations. |
| Transport in bulk according to IMOinstruments | No data available |

## 15. Regulatory information

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| Inventory status | Components are on the following inventories: Polymaleic acid: - US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Philippine PICCS and Chinese Xi irritant R 36/38 Irritant to eyes & skin R 41 Risk of serious damage to eyes S24/25 Avoid contact with skin and eyes S26/28 In case of contact eyes & skin, rinse with plenty water and seek medical advice Section 312/313: Not listed. Not listed under California proposition 65. |
| Safety, health and environmental regulations/legislation specific for the substance or mixture | This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. |
| National legislation | Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : OTHER HAZARDS |
| Other regulations | Take note of Dir 94/33/EC on the protection of young people at work. |
| Chemical Safety Assessment | For this product a chemical safety assessment was not carried out |

## 16. Other information

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| Other Information | The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and weassume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages. |