

1. Product and Company Identification

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Product Name Hexamethyldisilazane
Part Number RXSOL-60-6645-160

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

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2. Composition / Information on ingredients

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| Product name | Cas No | EC No | Weight | Formula |
|----------------------|----------|-----------|--------------|---|
| Hexamethyldisilazane | 999-97-3 | 213-668-5 | 133,49 g/mol | C ₆ H ₁₉ NSi ₂ |

3. Hazards Identification

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| Signal Word | Danger |
| Hazard Statements | H225 Highly flammable liquid and vapor. H302 + H332 Harmful if swallowed or if inhaled. H311 Toxic in contact with skin. H412 Harmful to aquatic life with long lasting effects. |
| Precautionary statements | P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. |
| Classification of the substance or mixture | No data available |
| Supplemental Hazard Statements | No data available |
| 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. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician. |
| Eye Contact | After eye contact rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses. |

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| Swallowed | After swallowing immediately make victim drink water (two glasses at most). Consult a physician. |
| Skin Contact | In case of skin contact Take off immediately all contaminated clothing. Rinse skin with water/ shower |
| Inhalation | No data available |
| Ingestion | No data available |
| 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 | No data available |
| Suitable extinguishing media | Carbon dioxide (CO2) Dry powder |
| Unsuitable extinguishing media | Foam Water |
| Special hazards arising from the substance or mixture | Carbon oxides Nitrogen oxides (NOx) silicon oxides Combustible. Fire may cause evolution of: nitrogen oxidesCaution! in contact with water product releases: Ammonia, formaldehyde vapours Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures. |
| Further information | Remove container from danger zone and cool with water. 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 | No data available |
| 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 | No data available |
| Specific Hazards Arising from the Chemical | No data available |

6. Accidental Release Measures

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| Personal precautions, protective equipment and emergency procedures | Advice for non-emergency personnel: Do not breathe vapors, aerosols. 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 | No data available |
| Personal Protection | No data available |
| Environmental 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 carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area. |
| Reference to other sections | For disposal see section 13. |

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 | No data available |
| Hygiene measures | Immediately change contaminated clothing. Apply preventive skin |

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| Advice on safe handling | protection. Wash hands and face after working with substance. For precautions see section 2.2. |
| Conditions for safe storage including any incompatibilities | Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. |
| Storage conditions | No data available |
| Storage class | Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons. Recommended storage temperature see product label. |
| Specific end use(s) | No data available |
| Advice on general occupational hygiene | Apart from the uses mentioned in section 1.2 no other specific uses are stipulated |
| | No data available |

8. Exposure controls and personal protection

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| Exposure controls | Personal protective equipment |
| Engineering Control | No data available |
| Eye/face protection | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses |
| 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: 0,4 mm Break through time: 480 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M) 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: Chloroprene Minimum layer thickness: 0,65 mm Break through time: 240 min Material tested:KCL 720 Camapren® |
| Respiratory protection | Recommended Filter type Filter type K The entrepreneur 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 | No data available |

9. Physical and chemical properties

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| Physical state | Liquid |
| Colour | Colorless |
| Odour | No data available |
| Odor Threshold | No data available |
| pH | > 7,0 |
| Melting Point | -76,2 °C at 1.013 hPa |
| Boiling Point | 125 °C at 1.013 hPa |
| Flash Point | 11,4 °C - closed cup |
| Evaporation Rate | No data available |
| Flammability (solid, gas) | No data available |
| Explosive limits | No data available |

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| Upper/lower flammability or explosive limits | Upper explosion limit 16,3 %(V) Lower explosion limit 0,8 %(V) |
| Autoignition temperature | 380,0 °C |
| Decomposition temperature | No data available |
| Vapour pressure | 19 hPa at 20 °C |
| Viscosity | Kinematic 0,9 mm ² /s at 20 °C |
| Density | No data available |
| Relative Density | 0,77 at 20 °C |
| Specific Gravity | No data available |
| Partition coefficient | log Pow 2,62 |
| Explosive properties | No data available |
| Solubility | insoluble |
| Ignition temperature | No data available |
| Particle characteristics | No data available |

10. Stability and reactivity

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| Reactivity | Vapors may form explosive mixture with air. |
| Chemical stability | The product is chemically stable under standard ambient conditions (room temperature) |
| Possibility of hazardous reactions | Risk of explosion with Nitric acid Oxidizing agents can decompose violently in contact with: Amines mercaptans Exothermic reaction with: Alcohols nitrates strong reducing agents hydrides bases acids Water Release of: Ammonia formaldehyde |
| Conditions to avoid | Warming. |
| Incompatible materials | No data available |
| Hazardous decomposition products | In the event of fire: see section 5 |

11. Toxicological information

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| Acute toxicity | LD50 Oral - Rat - male and female - 851 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rat - male and female - 6 h - 10 mg/l (OECD Test Guideline 403) LD50 Dermal - Rabbit - male and female - 547 - 589 mg/kg (OECD Test Guideline 402) |
| Skin corrosion/irritation | Causes skin irritation. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) |
| Serious eye damage/irritation | Eyes - Rabbit No eye irritation (OECD Test Guideline 405) |
| Respiratory or skin sensitization | No data available |
| Carcinogenicity | No data available |
| Germ cell mutagenicity | Test Type: Ames test Test system: S. typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 47 |
| Reproductive toxicity | No data available |
| Specific target organ toxicity - single exposure | No data available |
| Additional Information | Repeated dose toxicity - Rat - male and female - inhalation (vapor) Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, 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 | Biodegradability aerobic - Exposure time 28 d Result: 15,3 % - Not |
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| Toxicity to fish | readily biodegradable. (Directive 67/548/EEC Annex V, C.4.E.) Semi-static test LC50 - Danio rerio (zebra fish) - 88 mg/l - 96 h (Directive 67/548/EEC, Annex V, C.1.) |
| Toxicity to daphnia and other aquatic invertebrates | Static test EC50 - Daphnia magna (Water flea) - 80 mg/l - 48 h (Directive 67/548/EEC, Annex V, C.2.) |
| Toxicity | No data available |
| Toxicity to bacteria | No data available |
| Toxicity to algae | EC50 - Desmodesmus subspicatus (green algae) - 19,00 mg/l - 72 h |
| Products Biodegradation | No data available |
| Mobility in soil | No data 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. |
| Endocrine disrupting properties | No data available |
| Other adverse effects | Biological effects Harmful effect due to pH shift. Discharge into the environment must be avoided. |

13. Disposal considerations

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| Product | See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions. |
| Contaminated packaging | No data available |
| Waste treatment Method | No data available |

14. Transport information

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| UN number | ADR/RID:3286 | IMDG:3286 | IATA:3286 |
| UN proper shipping name | ADR/RID:FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (1,1,1,3,3,3- hexamethyldisilazane | IMDG:FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (1,1,1,3,3,3- hexamethyldisilazane | IATA:FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (1,1,1,3,3,3- hexamethyldisilazane) |
| Transport hazard class(es) | ADR/RID:3 (6.1, 8) | IMDG:3 (6.1, 8) | IATA:3 (6.1, 8) |
| Packaging group | ADR/RID: II | IMDG:II | IATA:II |
| Environmental hazards | ADR/RID:No | IMDG:No | IATA:No |
| Special precautions for user | No data available | | |
| Further information | No data available | | |

15. Regulatory information

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| 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. |
| Other regulations | Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work. |
| Chemical Safety Assessment | A Chemical Safety Assessment was not carried out for this substance. |

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 we assume no liability resulting from its use. Users should make their own investigations to determine |
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