

1. Product and Company Identification

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Product Name ISO PROPANOL AMINE
Part Number RXSOL-19-1338-200

Company Details:

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

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2. Composition / Information on ingredients

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Chemical Name	Cas No	EC No	Weight	Formula
Aminopropanol (mixture of isomers) for synthesis	78-96-6	201-162-7	75,11 g/mol	C ₃ H ₉ NO

3. Hazards Identification

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Signal Word	Dange
Hazard Statements	H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage.
Precautionary statements	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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. P362 + P364 Take off contaminated clothing and wash it before reuse.
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	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.
Eye Contact	Rinse out with plenty of water. Remove contact lenses
Swallowed	Make victim drink water (two glasses at most). Consult doctor if feeling

	unwell.
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) Foam Dry powder
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given
Special hazards arising from the substance or mixture	Carbon oxides Nitrogen oxides (NOx) Combustible. Fire may cause evolution of: nitrogen oxides Vapors are heavier than air and may spread along floors Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.
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 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 protection. Wash hands and face after working with substance. For precautions see section 2.2.

Advice on safe handling	No data available
Conditions for safe storage, including any incompatibilities	No data available
Storage conditions	Tightly closed. Recommended storage temperature see product label
Storage class	Storage class (TRGS 510)8A Combustible, corrosive 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	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	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: butyl-rubber Minimum layer thickness: 0,7 mm Break through time: 480 min Material tested:Butoject® (KCL 898) 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: 120 min Material tested:KCL 741 Dermatrill® L
Respiratory protection	Recommended Filter type Filter A (acc. to DIN 3181) for vapours of organic compounds 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	Ammoniacal
Odor Threshold	No data available
pH	No data available
Melting Point	1 °C
Boiling Point	159 °C at 1.013 hPa
Flash Point	71 °C - closed cu
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Explosive limits	No data available
Upper/lower flammability or explosive limits	Upper explosion limit 10,4 %(V) Lower explosion limit 1,9 %(V)
Autoignition temperature	No data available
Decomposition temperature	No data available
Vapour pressure	0,63 hPa at 25 °C
Viscosity	Kinematic 11,2 mm ² /s at 40 °C Dynamic ca.30,43 mPa.s at 20 °C

Density	0,962 g/cm ³ at 20 °C
Relative Density	0,96 at 20 °C
Specific Gravity	No data available
Partition coefficient	Log Pow -0,93 at 23 °C - Bioaccumulation is not expected
Explosive properties	No data available
Solubility	at 20 °C soluble
Ignition temperature	No data available
Particle characteristics	No data available

10. Stability and reactivity

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Reactivity	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines! Violent reactions possible with Strong oxidizing agents Exothermic reaction with: acids
Condition to avoid	Strong heating.
Incompatible materials	Strong oxidizing agents
Hazardous product decomposition	No data available

11. Toxicological information

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Acute toxicity	LD50 Oral - Rat - male and female - 2.813 mg/kg (OECD Test Guideline 401) Remarks: (ECHA) LC50 Inhalation - Rat - male - 4 h - > 3.960,71 mg/l - aerosol (OECD Test Guideline 403) LD50 Dermal - Rabbit - 1.600 mg/kg (External MSDS) (Regulation (EC) No 1272/2008, Annex VI) Intraperitoneal: (ECHA)
Skin corrosion/irritation	Skin - Rabbit Causes burns (ECHA)
Serious eye damage/irritation	Eyes - Rabbit Causes serious eye damage. (ECHA)
Respiratory or skin sensitization	No data available
Carcinogenicity	No data available
Germ cell mutagenicity	Test Type In vitro mammalian cell gene mutation test Metabolic activation: with and without metabolic activation Method OECD Test Guideline 476 Result negative Test Type: Mutagenicity (mammal cell test) chromosome aberration. Metabolic activation with and without metabolic activation Method OECD Test Guideline 473 Result negative Test Type: Ames test Test system: Escherichia coli Metabolic activation with and without metabolic activation Result: negative (ECHA)
Reproductive toxicity	No data available
Specific target organ toxicity- single exposure	No data available
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., Cough, Shortness of breath, Headache, Nausea To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Under given conditions, contact with nitrites or nitric acid can lead to the formation of nitrosamines, which have shown themselves to be carcinogenic in animal experiments. Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

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Persistence and degradability	Biodegradability aerobic - Exposure time 28 d Result: >= 78 % - Readily biodegradable. (OECD Test Guideline 301F)
Toxicity to fish	LC50 - <i>Leuciscus idus</i> (Golden orfe) - 220 - 460 mg/l - 96 h (IUCLID)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - <i>Daphnia</i> - 108,82 mg/l - 48 h (ECHA)
Toxicity	No data available
Toxicity to bacteria	EC50 - activated sludge - > 261 mg/l - 30 min (ECHA)
Toxicity to algae	Static test ErC50 - <i>Desmodesmus subspicatus</i> (green algae) - 32,7 mg/l - 72 h (ECHA)
Bioaccumulation potential	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	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	Neutralise before sewage disposal. No interference with wastewater treatment plants are to be expected when used properly. 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:2735 IMDG:2735 IATA:2735
UN proper shipping name	ADR/RID:AMINES, LIQUID, CORROSIVE, N.O.S. (1-aminopropan-2-ol) IMDG:AMINES, LIQUID, CORROSIVE, N.O.S. (1-aminopropan-2-ol) IATA:AMINES, LIQUID, CORROSIVE, N.O.S. (1-aminopropan-2-ol)
Transport hazard classess	ADR/RID:8 IMDG:8 IATA:8
Packaging group	ADR/RID:II IMDG:II IATA:II
Environmental hazards	ADR/RID:No IMDG Marine pollutant:No IATA: No
Special precautions for user	Tunnel restriction code (E)
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	For this product a chemical safety assessment was not carried out

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 the suitability of the information for their particular purposes. In no event shall we 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.

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