Material Safety Data Sheet

Thiourea (RXSOL-19-1419-025)

1. Product and Company Identifaction

Product Name	:Thiourea
Part Number	:RXSOL-19-1419-025

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

Branch : Kandla, Chennai, MUMBAI, Vizag, Kolkata, FUJAIRAH UAE, MUSCAT Oman

Phone	+91 22 27815540 / 41 / 42
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	123@rxmarine.com
Website	www.rxmarine.com

2. Composition / informationon ingredients

Name of Substance	Cas Number	EINECS No	Molecular weight	Weight %
Thiourea	62-56-6	200-543-5	76,12 g/mol	100%

3. Hazards Identification

Signal Word	Warning
Hazard Statements	H302 Harmful if swallowed. H351 Suspected of causing cancer. H361d Suspected of damaging the unborn child. H411 Toxic to aquatic life with long lasting effects.
Precautionary statement(s)	P201 Obtain special instructions before use.P273 Avoid release to the environment. P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P391 Collect spillage. P501 Dispose of contents/ container to an approved waste disposal plant.
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.
Classification of the substance or mixture	Classification according to Regulation (EC) No 1272/2008 Acute toxicity, Oral (Category 4), H302 Carcinogenicity (Category 2), H351 Reproductive toxicity (Category 2), H361d Chronic aquatic toxicity (Category 2), H411 For the full text of the H-Statements mentioned in this Section, see Section 16.
Classification according to EU Directives 67/548/EEC or 1999/45/EC	Xn Harmful R40 R63 R22 N Dangerous for the R51/53 environment For the full text of the R-phrases mentioned in this Section, see Section 16

4. 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	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact	Flush eyes with water as a precaution.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician
Most important symptoms and effects, both acute and delayed	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

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture	Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides
Advice for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	No data available

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
Enviromental Precaution	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Handle and store under inert gas. Storage class (TRGS 510): Non Combustible Solids
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

Appropriate engineering controlsl	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Eye/face protection : Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under 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.

Personal protective equipment

Body Protection :Complete suit protecting against chemicals, 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 particle respirator type N100 (US) or type P3 (EN 143) 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

Form	Crystalline
Colour	white
Odour	odourless
Odour Threshold	No Data Available
Melting point/freezing point	Melting point/range: 170 - 176 °C
Flash Point	No data available
Freezing Point	No Data Available
pH	5,0 - 7 at 50 g/l at 20 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Explosive properties	No data available
Vapor pressure	No data available
Relative vapor density	No data available
Relative density	1,405 g/cm3 at 20 °C
Water solubility	137 g/l at 20 °C
Partition coefficient: octanol/water	log Pow: -0,92 at 20 °C
Autoignition temperature	No data available
decomposition temperature	No data available
Viscosity, kinematic	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Bulk density	640 kg/m3

10. Stability and reactivity

Recativity	No data available
chemical Stability	Stable under recommended storage conditions
Possibility of hazardous reactions	No data available
Incompatible materials	Strong oxidizing agents, Strong acids, Strong bases, Hydrogen peroxide, Sulphur oxides
Hazardous Decomposition	Other decomposition products - No data available In the event of fire: see section 5
Condition to Avoid	Heat

11. Toxicological information

Acute toxicity	LD50 Oral - Rat - 1.750 mg/kg LC50 Inhalation - Rat - 4 h - > 170 mg/m3 LD50 Dermal - Rabbit - > 2.800 mg/kg
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes - Rabbit Result: Mild eye irritation (OECD Test Guideline 405)
Respiratory or skin sensitisation	Maximisation Test (GPMT) - Guinea pig Does not cause skin sensitisation.
Germ cell mutagenicity	No data available in vitro assay Result: Not mutagenic in Ames Test
Carcinogenicity	This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Limited evidence of carcinogenicity in animal studies IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Thiourea)
Reproductive toxicity	Suspected human reproductive toxicant
Specific target organ toxicity - single exposure	No data available
Aspiration hazard	No data available
Additional Information	RTECS: YU2800000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Liver - Irregularities - Based on Human Evidence

12. Ecological information

Toxicity	Toxicity to fish : LC50 - Danio rerio (zebra fish) - 10,000 mg/l - 96,0 h Toxicity to daphnia andother aquaticinvertebrates :EC50 - Daphnia magna (Water flea) - 5,6 - 18,0 mg/l - 48 hother aquatic invertebrates Toxicity to algae : EC50 - Desmodesmus subspicatus (green algae) - 6,8 mg/l - 96 h
Persistence and degradability	Biodegradability Biotic/Aerobic - Exposure time 31 d Result: 1 % - Not readily biodegradable.
Bioaccumulative 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.
Persistence and degradability	No data available
Other adverse effects	Toxic to aquatic life with long lasting effects.

13. Disposal considerations

Waste treatment methods	Product Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging	Dispose of as unused product.

14. Transport information

Hazard Pictograms:

UN Number	ADR/RID: 3077 IMDG: 3077 IATA: 3077
Proper shipping name	ADR/RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiourea) IMDG :ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiourea) IATA : Environmentally hazardous substance, solid, n.o.s. (Thiourea)
Transport hazard class(es)	
ADR/RID	9
IMDG	9
IATA /IMDG/IATA	9
Packing group	
ARD/RID	III
IMDG	III
IATA	III
Environmental hazards	
ADR/RID	YES
Marine pollutant	YES
IATA	YES
Further information	EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids

15. Regulatory information

Regulations	This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Chemical safety assessment	For this product a chemical safety assessment was not carried out
Safety, health and environmental regulations/legislation specific for the substance or mixture	No data available

16. Other information

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 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.