Material Safety Data Sheet

Urea Solution 35 (RXSOL-51-1920-230)

1. Product and Company Identifaction

Product Name	Urea Solution
Part Number	RXSOL-149-1920-210

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

Stock Point : Nairobi, Fujairah, Muscat, Mumbai, Kandla, Chennai, Vizag, Kolkata

Phone	+91 22 27815541
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	123@rxmarine.com
Website	www.rxmarine.com

2. Composition / informationon ingredients

Ingrident	Cas Number	Weight %
Troclosene sodium, dihydrate	51580-86-0	5 - 6
Sodium Carbonate	497-19-8	1 - 5
Quaternary Ammonium Compounds	Proprietory	20 - 25
CO(NH2)2	57-13-6	35-37

3. Hazards Identification

Signal Word	Caution
Hazard Statements	Harmful if swallowed or in contact with skin. May cause an allergic skin reaction.Causes eye irritation.
Label Elements	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Mixing this product with acid or ammonia releases chlorine gas.
Classification	Not classified as Dangerous Goods by the criteria of theproduct for the Transport of Dangerous Goods by Road , Sea , rail etc.

4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops and persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear. Serious Ingestion: Not available.

5. Fire-fighting Measures

Flammability	Non-flammable.
Flash Point	Not applicable.
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Hazardous combustion products	Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx) Sulfur oxides Oxides of phosphorus
Protective Equipment	Use personal protective equipment.
Specific extinguishing methods	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

6. Accidental Release Measures

Small Spillage	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Enviromental Precaution	Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning	Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Handling	Do not get in eyes, on skin, or on clothing. Mixing this product with acid or ammonia releases chlorine gas. Wash hands thoroughly after handling.
Storage	Keep out of reach of children. Store in suitable labeled containers.
Storage temperature	: 0 °C to 40 °C

8. Exposure controls and personal protection

Engineering Controls:	Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.
Personal Protection	Eye protection : No special protective equipment required. Hand protection : No special protective equipment required. Skin protection : No special protective equipment required. Respiratory protection : No personal respiratory protective equipment normally required. Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling.
Hygene Measure	Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.



Gloves



Suit

9. Physical and chemical properties

Form	Liquid
Colour	Clearless
Odour	Odourless
Solubility	Soluble in water
Soluble in water	Infinite
Specific Gravity (20 °C	1.002

Density: N Av
Relative Vapour Density (air=1): >1
Vapour Pressure (20 °C): N Av
Flash Point (°C): N App
Flammability Limits (%): N Av
Autoignition Temperature (°C): N App
Melting Point/Range (°C): N Av
Boiling Point/Range (°C): Approx 100°C (@ 101.3 kPa)
pH: 10.5 - 11.5
Viscosity: N Av
Total VOC (g/Litre): N Av
(Typical values only - consult specification sheet)
N Av = Not available, N App = Not applicab

Physical State	:	Liquid
Appearance	:	Clear Liquid
Odor	:	NA
Odor Threshold	:	No information available.
PH	:	Acidic
Melting / Freezing Point	:	-41.6°C (-42.9°F)
Boiling Point/Range	:	121°C (249.8°F)
Flash Point	:	NA
Evaporation Rate	:	No information available.
Lower Explosion Limit	:	No data available.
Vapor Pressure	:	No data available.
Vapor Density		No data available.
Relative Density	:	1.0 - 1.25
Solubility in Water	:	Complete
Pour point	:	No data available
Partition coefficient n octanol/water	:	Not available.
Viscosity	:	No data available
Explosive Properties	:	Not applicable
Oxidizing Properties	:	Not applicable

10. Stability and reactivity

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Incompatible materials
Incompatibility with various substances:
Highly reactive with alkalis. Reactive with reducing agents, combustible materials, organic materials, metals, acids.
Corrosivity:
Extremely corrosive in presence of aluminum, of copper. Non-corrosive in presence of glass, of stainless steel(304), of stainless steel (316), of brass.
Special Remarks on Reactivity:
A strong oxidizer. Reacts violently with alcohol, organic material, turpene, charcoal. Violent reaction with Nitric acid + Acetone and Sulfuric acid. Nitric Acid will react with water or steam to produce heat and toxic, corrosive and flammable vapors. (Nitric acid, fuming)

Special Remarks on Corrosivity:
In presence of traces of oxides, it attacks all base metals except aluminum and special chromium steels. It will attack some forms of plastics, rubber, and coatings. No corrosive effect on bronze. No corrosivity data for zinc, and steel
Polymerization: Will not occur.

11. Toxicological information

Routes of Entry: Inhalation. Ingestion.
Toxicity to Animals: Acute oral toxicity (LD50): 2970 mg/kg [Mouse].
Chronic Effects on Humans: MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.
Other Toxic Effects on Humans:
Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals:
Lowest Published Lethal Dose: LDL [Rat] - route: Oral; Dose: 1600 mg/kg
Special Remarks on Chronic Effects on Humans: May affect genetic material.
Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritaiton. Inhalation: May cause respiratory tract irritation with coughing and shortness of breath. Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea, and possible abdominal cramping. Chronic Potential Health: Inhalation: Prolonged or repeated inhalation may affect blood and urinary system. The toxicological properties of this substance have not been fully investigated.

12. Ecological information

Ecotoxicity: Not available.
BOD5 and COD: Not available.
Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic. Special Remarks on the Products of Biodeg radation: Not available.

13. Disposal considerations

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations

14. Transport information

DOT Classification: CLASS 9: Miscellaneous hazardous material.
Identification: : Environmentally hazardous substances, solid, N.O.S.(Potassium Ferricyanide) UNNA: 3077 PG: III
Special Provisions for Transport: Marine Pollutant

15. Regulatory information

Federal and State Regulations: TSCA 8(b) inventory: Potassium ferricyanide and Nitric Acid
Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.
Other Classifications:
WHMIS (Canada): Not controlled under WHMIS (Canada).
DSCL (EEC):
R36/38- Irritating to eyes and skin. S2- Keep out of the reach of children. S46- If swallowed, seek medical advice immediately and show this container or label.
HMIS (U.S.A.):
Health Hazard: 2
Fire Hazard: 0
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):
Health: 2
Flammability: 0
Reactivity: 0
Specific hazard:

Protective Equipment:
Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

16. Other information

Full text of R-Phrases

R22 :Harmful if swallowed.
R23/24/25 :Toxic by inhalation, in contact with skin and if swallowed.
R34 :Causes burns.
R35 :Causes severe burns.
R38 :Irritating to skin.
R41 :Risk of serious damage to eyes.
R43 :May cause sensitization by skin contact.

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