Material Safety Data Sheet

Total Hardness Solution (RXSOL-60-5531-002)

1. Product and Company Identifaction

Product Code	RXSOL-60-6005-500
Product Name	Total Hardness Solution

Company Details:

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

Phone	+91 22 65113333 / 5555 / 9999
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	mail@rxmarine.com

2. Composition / informationon ingredients

SARA 313 Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
Ammonium Chloride	CAS# 12125- 02-9	6.8%	W/V	None Established
Ammonium Hydroxide 28-30% w/w	CAS# 1336- 21-6	57.2%	V/V	None Established
Water, Deionized ASTM Type II	CAS# 7732-18-5	36%	V/V	None Established

3. Hazards Identification

May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.

Emergency Overview:Caution! May Cause Irritation to Skin and Eyes.

Inhalation:No Adverse Health Effects Expected from Inhalation.

Ingestion:Substance has Low Toxicity by Ingestion. Large Amounts May Cause Gastrointestinal Upset due to Osmotic Imbalance Caused by its ability to Sequester Metal Ions.

Skin:May Cause Irritation with Redness and Pain.

Eye Contact:May Cause Irritation, Redness and Pain.

Chronic Exposure:No Information Found.

Aggravated by Exposure:No Information Found.

4. First Aid Measures

SKIN:	Remove contaminated clothing. Wash exposed area with soap and water. if irritation persists, seek medical attention.
EYES:	Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid.
INHALATION:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen
INGESTION:	Give several glasses of milk or water. Vomiting may occur

5. Fire-fighting Measures

Fire Extinguisher Type:	Any means suitable for extinguishing surrounding fire.
Fire / Explosion Hazards:	Thermal decomposition produces highly toxic fumes.
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

6. Accidental Release Measures

Absorb spill with inert material, then place in a chemical waste container. Neutralize with a weak acid.Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of Of spill. Wear appropriate personal protective equipment as specified in section 8. Contain and recover liquid when possible. Do not flush caustic residues to the sewer. Residues from spills can be diluted with water, neutralized with dilute acid such as acetic, hydrochloric Or sulfuric. Absorb neutralized caustic residue on clay, vermiculite or other inert substance and package in a suitable container for disposal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

7. Handling and Storage

Store in a cool, dry, well-ventilated place away from incompatible materials. Wash thoroughly after handling.

8. Exposure controls and personal protection

Respiratory Protection:	NIOSH/MSHA-approved respirator
Ventilation:	Local Mechanical
Protective Gloves:	NIOSH Approved Gloves
Eye Protection:	Goggles and Face Shield
Other Protective Equipment:	Wear appropriate clothing to prevent skin exposure

9. Physical and chemical properties

Melting Point:	Information Not Available
Boiling Point:	Information Not Available
Vapor Pressure:	Information Not Available
Vapor Density:	Information Not Available

Solubility in Water:	Soluble
Appearance/Odors:	Clear liquid with ammonia
Flash Point:	Not applicable
Percent Volatile by Volume:	>90
Evaporation Rate:	Information Not Available
Evaporation Standard:	
Auto Ignition Temp:	Not Applicable
Lower Flamm. Limit in Air:	Not Applicable
Upper Flamm. Limit in Air:	Not Applicable
Specific Gravity:	Information Not Available

10. Stability and reactivity

Stability:	Stable
Conditions to Avoid:	Avoid contact with incompatible materials.
Materials to Avoid:	Strong oxidizers, halogens, bleaches
Hazardous Decomposition Products:	Ammonia
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid:	None known

11. Toxicological information

Carcinogenic References: IARC Category- None, NTP Carcinogen - Known: No

12. Ecological information

This material is not expected to significantly bioaccumulate.

13. Disposal considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport information

International (Water, IMO, IATA)

Not Regulated

DOT Classification: UN2672, Ammonia Solution (with 10-35% Ammonia), 8, PG III
DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

15. Regulatory information

Chemical Inventory Status –
Part 1:Ingrdient
Ammonium Hydroxide (1336-21-6)
Ammonium Chloride (12125-02-9)
TSCA Yes Yes
EC Yes Yes
Japan No Yes
Australia Yes Yes

Chemical Inventory Status –
Part 2:Ingredient
Ammonium Hydroxide (1336-21-6)
Ammonium Chloride (12125-02-9)
Korea Yes Yes
DSL Yes Yes
NDSL NO No
Phil. Yes Yes

Federal, State & International Regulations –
Part 1: Ingredient.
Ammonium Hydroxide (1336-21-6)
Ammonium Chloride (12125-02-9)
RQ NO No
TPQ NO NO
List NO No
Chemical Catg No No

Federal, State &
International Regulations –
Part 2:Ingredient
Ammonium Hydroxide (1336-21-6)
Ammonium Chloride (12125-02-9)
CERCLA 1000 5000
261.33 No No
8(d) No No

Chemical Weapons Convention:No
TSCA 12 (b):No
CDTA:NO

16. Other information

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the Rx Marine International or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material