Material Safety Data Sheet

Hardness Buffer Solution (RXSOL-60-6188-250)

1. Product and Company Identifaction

Product Name	RXSOL-60-6188-250
Product Type	Hardness Buffer Solution

Company Details:

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

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

2. Composition / informationon ingredients

SARA 313	Component	CAS Number.....	Percent	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

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.

FIRST AID: 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
OTHER	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

BOILING POINT	Information not available
VAPOR PRESSURE	Information not available
MELTING POINT	Information not available
VAPOR DENSITY	Information not available
EVAPORATION RATE	Information not available
Appearance /Odors	Clear liquid with ammonia
Flash Point	Not applicable
Specific Gravity	Information not available
Percent Volatile by Evaporation Standard	>90
Auto Ignition Temp	Not applicable
Lower Flamm. Limit in Air	Not applicable
Upper Flamm. Limit in Air	Not applicable
Solubility in Water	Soluble

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. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. 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

Conditions aggravated/target organs: Corrosive! Harmful or fatal if inhaled or swallowed. Persons with preexisting skin, eye or respiratory disorders may be more susceptible. Acute: Extremely destructive to mucous membranes, upper respiratory tract, eyes and skin. May cause spasm, inflammation and edema of larynx and bronchi, pneumonitis and pulmonary edema. Chronic: Damage to

	Flammability	
Health		Reactivity

Revisions	NFPA	
7/29/2010	0.1	updated msds to 16 section from 10 section msds. STN
5/9/2011	0.2	updated showing sec 14 info

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 above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material