Material Safety Data Sheet

Calcium Buffer Solution (RXSOL-60-6196-001)

1. Product and Company Identifaction

Product Name	RXSOL-60-6196-001
Product Type	Calcium Buffer Solution

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
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2. Composition / informationon ingredients

SARA 313 Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
Sodium Hydroxide	CAS# 1310-73-2	15 - 17%	W/W	OSHA PEL 2 mg/mf ACGIH 2mg/mf
Water, Deionized ASTM Type II	CAS# 7732- 18-5	73- 85%	W/W	None Established

3. Hazards Identification

Causes severe irritation and burns. Harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep

Emergency Overview:Poison! Danger! Corrosive. May be fatal if swallowed. Harmful if inhaled.
Causes burns to any area of contact. Reacts with water, acids and other materials.

Inhalation:Severe irritant. Effects from inhalation of mist vary from mild irritation to serious
damage of the upper respiratory tract, depending on severity of exposure. Symptoms may include sneezing, sore throat or runny nose. Severe pneumonitis may occur

Ingestion:Corrosive! Symptoms may include severe burns of mouth, throat, and stomach. Severe Scarring of tissue and death may result. Symptoms may include bleeding, vomiting, diarrhea, fall in blood pressure. Damage may appear days after exposure.

Skin:Corrosive! Contact with skin can cause irritation or severe burns and scarring with greater
exposures.

Eye Contact:Corrosive! Causes irritation of eyes, and with greater exposures it can cause burns that

Chronic Exposure:May result in permanent impairment of vision, even blindness.

Aggravated by Exposure:Prolonged contact with dilute solutions or dust has a destructive effect
upon tissue.

Persons with pre-existing skin disorders or eye disease may be more susceptable to the
Effects ot this substance.

4. First Aid Measures

Causes severe irritation and burns. Harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash

SKIN:	In case of contact, immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse.
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 spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person.

5. Fire-fighting Measures

Fire Extinguisher Type:	Water spray, Carbon dioxide, dry chemical, powder, foam.
Fire / Explosion Hazards:	None
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 the area
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

Keep in tightly closed container. Store in a cool, dry, well-ventilated place away from incompatible materials. Wash thoroughly after handling. Store above 60 deg F (16°C) to prevent freezing. Containers of this product may be hazardous when

8. Exposure controls and personal protection

Respiratory Protection	NIOSH/MSHA-approved respirator empty. thoroughly after handling. Keep container closed
Ventilation	Local
OTHER	Mechanical
Protective Gloves	NIOSH Approved Gloves
EYE PROTECTION	Splash Goggles or full 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 odorless liquid
Flash Point	Not applicable
Specific Gravity	~1.22
Percent Volatile by Evaporation Standard	83-85%
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	Acids, flammable liquids, organic halogens, metals, nitrocompounds
HAZARDOUS DECOMPOSITION PRODUCTS	sodium oxide, Reation w/ metals may release H2 Gas
HAZARDOUS POLYMERIZATION	Will Not Occur
Conditions to Avoid	None known

11. Toxicological information

NTP Carcinogen - Known: No, IARC Category- None

12. Ecological information

No Information Found.

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

DOT Classification: UN1824, Sodium Hydroxide Solution, 8, PG II

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
Sodium Hydroxide (1310-73-2)

TSCA Yes
EC Yes
Japan yes
Australia Yes

Chemical Inventory Status –
Part 2:Ingredient
Sodium Hydroxide (1310-73-2)

Korea Yes
DSL Yes
NDSL No
Phil. Yes

Federal, State & International Regulations –
Part 1: Ingredient.
Sodium Hydroxide (1310-73-2)

RQ No
TPQ NO
List No
Chemical Catg No

Federal, State &
International Regulations –
Part 2:Ingredient
Hydrogen Chloride (7647-01-0)
Water (7732-18-5)
CERCLA 1000
261.33 No
8(d) No

Chemical Weapons Convention:No
TSCA 12 (b):No
CDTA:NO Mixture/Liquid)
SARA 311/312: Acute: Yes
Chronic: Yes
Fire: NO
Pressure: No
Reactivity: YES
Australian Hazchem Code: None
Poison Schedule: None allocated

16. Other information

Conditions aggravated/target organs: Corrosive! Persons with pre- existing skin and eye disorders will be more susceptible. Acute: Skin and eye irritation or burns. Chronic: Dermatitis, eye damage.

Flammability

Health Reactivity

Revisions	NFPA
7/30/2010	0.1 updated msds to 16 section from 10 section msds. STN
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