Material Safety Data Sheet

Sodium Thiosulfate Pentahydrate Solution (RXSOL-12-2031-200)

1. Product and Company Identifaction

Product Name	RXSOL-19-2031-050
Product Type	Sodium Thiosulfate Solution

Synonym: Ametox, Antichlor; Sodium Hyposulfite, Pentahydrate
Chemical Name: Thiosulfuric Acid, disodium salt, Pentahydrate
Chemical Formula: Na2S2O3.5H20

Company Details:

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

Stock Point : Mumbai, Kandla, Chennai, Visakhapatnam, Kolkata, Fujairah

Phone	+91 22 27815540 / 41 / 42
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2. Composition / informationon ingredients

Chemical Name	CAS #	Percent	EINECS/ELINCS
Sodium thiosulfate, Pentahydrate	10102-17-7	45-50	Unlisted
Sodium Carbonate	497-19-8	2	Unlisted

3. Hazards Identification

Appearance: colorless liquid. Caution! May cause respiratory tract irritation. May cause skin irritation. May cause eye irritation. This is expected to be a low hazard for usual industrial handling.
Target Organs: None. Potential Health Effects
Eye: May cause mild eye irritation.
Skin: May cause skin irritation. Ingestion: Ingestion of large amounts may cause gastrointestinal irritation. Inhalation: Low hazard for usual industrial handling. May cause respiratory tract irritation. Chronic: No information found.

4. First Aid Measures

Eyes	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin	Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Induce vomiting by giving one teaspoon of Syrup of Ipecac.
Inhalation	Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician	Effects may be delayed. Ethanol may inhibit methanol metabolism.

5. Fire-fighting Measures

General Information	General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May be ignited by heat, sparks, and flame.
Extinguishing Media	Extinguishing Media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam. Flash Point: Not applicable. Autoignition Temperature: Not applicable. Explosion Limits, Lower:Not available. Upper: Not available. NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

6. Accidental Release Measures

General Information	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks	Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as saw dust. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

7. Handling and Storage

Handling	Avoid prolonged or repeated contact with skin. Avoid ingestion and inhalation. Use with adequate ventilation. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, direct sunlight. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage	Storage: Store in a cool, dry place. Store in a tightly closed container. Do not store in aluminum or lead containers. Keep away from heat as the potential for release of sulfur dioxide fumes exists. Liquid sodium thiosulfate has very low toxicity but routine safety precautions should be practiced. Rubber gloves, safety goggles and protective clothing is recommended.

8. Exposure controls and personal protection

Engineering Controls	Use adequate ventilation to keep airborne concentrations low. Expos

	Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Exposure Limits	Water	none listed	none listed	none listed
	Sodium thiosulfate, pentahydrate	none listed	none listed	none listed

OSHA Vacated PELs	Water ::: No OSHA Vacated PELs are listed for this chemical. Sodium thiosulfate, pentahydrate ::: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment	Eyes	Wear chemical goggles. Wear appropr safety goggles as described by OSHA's CFR 1910.133 or European Standard EN
	Skin	Wear appropriate protective gloves to pre
	Clothing	Wear appropriate protective clothing to p
	Respirators	Follow the OSHA respirator regulations Standard EN 149. Use a NIOSH/MSHA respirator if exposure limits are exceede experienced.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Clear, colorless
Odor	None reported - weak odor
pH	Not available.
Vapor Pressure	14 mm Hg
Vapor Density	Not available
Evaporation Rate	>1 (ether=1)
Viscosity	Not available
Boiling Point	212 deg F
Freezing/Melting Point	32 deg F
Decomposition Temperature	Not available.
Solubility	Soluble
Specific Gravity/Density	>1

Molecular Formula	Mixture
Molecular Weight	Not available.

10. Stability and reactivity

Chemical Stability	Stable under normal temperatures and pressures.
Conditions to Avoid	High temperatures, incompatible materials, ignition sources, oxidizers.
Incompatibilities with Other Materials	Sodium thiosulfate violently reacts with sodium nitrite. It is also incompatible with strong oxidizers, acids.
Hazardous Decomposition Products	Hydrogen sulfide, sodium oxide , Hazardous Polymerization: Has not been reported.

11. Toxicological information

RTECS#:
RTECS#: CAS# 7732-18-5: ZC0110000 CAS# 10102-17-7: WE6660000 LD50/LC50: CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg; . CAS# 10102-17-7:

Carcinogenicity: CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 10102-17-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: No data available.
Mutagenicity: No data available.
Neurotoxicity: No data available. Other Studies:

12. Ecological information

Physical: No informa ion available. Other: None.

13. Disposal considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series	None listed.
RCRA U-Series	None listed.

14. Transport information

	US DOT	IATA	RID/ADR	IMO	CanadaTDG

Shipping Name:	Not regulated as a hazardous material	Not regulated as a hazardous material	Not regulated as a hazardous material	Not regulated as a hazardous material	No information available

15. Regulatory information

US FEDERAL

TSCA	CAS# 7732-18-5 is listed on the TSCA inventory. CAS# 10102-17-7 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)). Health & Safety Reporting List None of the chemicals are on the Health & Safety Reporting List. Chemical Test Rules None of the chemicals in this product are under a Chemical Test Rule. Section 12b None of the chemicals are listed under TSCA Section 12b. TSCA Significant New Use Rule None of the chemicals in this material have a SNUR under TSCA. CERCLA Hazardous Substances and corresponding RQs None of the chemicals in this material have an RQ.
SARA	None of the chemicals in this product have a TPQ. Section 313 No chemicals are reportable under Section 313. Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors. Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
Clean Air Act	CAS# 67-56-1 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors. Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA	None of the chemicals in this product are considered highly hazardous by OSHA.
STATE	CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ. CAS# 10102-17-7 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
European/International Regulations	European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols: Not available. Risk Phrases: Safety Phrases: S 24/25 Avoid contact with skin and eyes. WGK (Water Danger/Protection) CAS# 7732-18-5: No information available. CAS# 10102-17-7: 0 Canada - DSL/NDSL CAS# 7732-18-5 is listed on Canada's DSL List. CAS# 10102-17-7 is listed on Canada's DSL List. Canada - WHMIS This product has a WHMIS classification of Not controlled.. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations. Canadian Ingredient Disclosure List

16. Other information

MSDS Creation Date: 7/21/2008 Revision #4 Date: 3/3/2009 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 Fisher 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 Fisher has been advised of the possibility of such damages.

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