Material Safety Data Sheet

Hypersolve SS (RXSOL-10-4190-025)

1. Product and Company Identifaction

Product Name	Hypersolve - SS Rx
Part Number	RXSOL-10-4190-025

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

Branch : Kandla, Sikka, Dahej, Hazira, JNPT, Goa, Mangalore, Cochin, Tuticorin, Chennai, Kakinada, Vizag, Paradip, Kolkata, UAE, Singapore.

Phone	+91 22 27815540 / 41 / 42
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Email	123@rxmarine.com
Website	www.rxmarine.com

2. Composition / informationon ingredients

Component	CAS-No.	Weight %	Exposure
n - Propyl Bromide	106-94-5	>95%	OSHA -PEL – N/E MREL – 100 PPM 8 hr. TWA*
1,2 - Butylene Oxide	106-88-7	1%	ACGIH-TLV-TWA – N/E OSHA-PEL-TWA – N/E
Dimethoxymethane	109-87-5	5%	Y (Hazardous) OSHA-PEL-TWA - 1000 ppm ACGIH TLV TWA -1000 ppm
t - Butanol	75-65-0	5%	Y (Hazardous) OSHA-PEL-TWA - 100 ppm ACGIH TLV TWA -100 ppm

3. Hazards Identification

Flash Point (Method)	None (TCC)
Flammable Limits	LEL ~3.8% UEL ~7.5%
Extinguishing Media:	All conventional media are suitable.
Special Fire Fighting Procedures:	Keep fire exposed containers cool with water. Fire fighters should wear self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode with appropriate gear and chemical resistant personal protective equipment.
Unusual Fire & Explosion Hazards	Material forms a flammable mixture with air in a narrow flammability range (3.8% – 7.5%. by volume). Containers exposed to flame or high heat may explode. In fire, toxic gases may be released. Use water to cool containers exposed to fire.

4. First Aid Measures

Ingestion	Seek medical attention immediately. If individual is drowsy or unconscious, do not give anything by mouth; place individual on left side with head down. If unconscious, give 1-2 glasses of water. Contact medical facility or poison control center for advice on whether to induce vomiting.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen.If breathing has stopped, perform artificial respiration. Keep person warm and quiet. Seek medical attention.
Eyes	Irrigate immediately with water for at least 15 minutes. Get medical attention if irritation persists.

Skin	Wash with soap and water. Thoroughly clean contaminated clothes and shoes before re-use. If symptoms persist, seek medical attention.
Carcinogen	NTP – Not Listed IARC Monographs – None OSHA REGS – NOT REGULATED

5. Fire-fighting Measures

Flash Point (Method)	None (TCC)
Flammable Limits	LEL ~3.8% UEL ~7.5%
Extinguishing Media	All conventional media are suitable. Special Fire Fighting Procedures: Keep fire exposed containers cool with water. Fire fighters should wear self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode with appropriate gear and chemical resistant personal protective equipment.
Unusual Fire & Explosion Hazards	Material forms a flammable mixture with air in a narrow flammability range (3.8% – 7.5%. by volume). Containersb exposed to flame or high heat may explode. In fire, toxic gases may be released. Use water to cool containers exposed to fire.

6. Accidental Release Measures

Small Spill	Absorb liquid on vermiculite, floor absorbent, or other inert absorbent material and place in suitable labeled containers for disposal.
Large Spill	Ventilate contaminated area. Eliminate all ignition sources, (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams, etc. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Transfer contaminated absorbent, soil and other materials to containers for disposal.
Waste Disposal Method	HYPERSOLVE™ may be disposed of as an industrial waste in a manner acceptable to good waste management practices and in compliance with applicable local, state and federal regulations.
Precautions To Be Taken In Handling & Storing	Materialn should be stored in a cool, dry, well-ventilated area. Aerosol containers may explode when exposed to temperatures at or above 1200F. Since empty containers retain product residues, all hazard precautions given in the data sheet must be observed. All metal pails or drums should be grounded and/or bonded when material is transferred. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperatures may result in ignition. Keep containerstightly closed.
Other Precautions	Keep this and all chemicals out of the reach of children.

7. Handling and Storage

HMIS Information:	Health – 2 / Reactivity – 0 Flammability – 1 Personal Protection – X
HMIS Definition	0 – Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Extreme “/” in the Health Category denotes material does not target any major organs. “*” in the Health Category denotes material may target certain organs. Personal Protection “X” means “Ask your safety specialist for handling instructions. .
Eye Protection	Chemical safety glasses and splash protection required.
Protective Gloves	Viton or Norfoil are recommended (contact your local glove supplier.) Nitrile or butyl rubber provide splash protection only.

Respiratory Protection	Not required under conditions of normal use when ventilation is adequate. If vapor mist is present, use NIOSH certified organic vapor mask.
Ventilation	Local exhaust/hood or fan may be used; adequate vent lation is extremely important. Other Protective Clothing: None required under normal use. Work Practices: All equipment should be grounded. Proper ventilation is required. Avoid breathing concentrated vapors/fumes. Treat this chemical with respect and follow all MSDS instructions.

8. Exposure controls and personal protection

Primary Routes of Exposure	Oral, Inhalation, & Skin
Ingestion	Swallowing large amounts may be harmful by causing gastrointestinal irritation.
Inhalation	Breathing large amounts may be harmful by causing nose, throat, and respiratory tract irritation and affecting the central nervous system by causing drowsiness, dizziness, and/or possible unconsciousness. Chemical burns are possible.
Eyes	Irritant. Liquid contact will irritate eyes and may cause stinging, tearing, and redness. Chemical burns are possible.
Skin or Contact	May cause mild irritation of redness and burning. Chemical burns are possible.
May aggravate pre-existing diseases of the skin, liver, kidney and respiratory system.	Long-term overexposure may cause effects of the lung, kidney, liver, urinary blood, bone marrow, heart, eye, nervous and reproductive systems.
Notes	This material is a halogenated alkane. Long term overexposure, (without adequate ventilation and/or protective equipment), may cause lung, kidney, liver, urinary, blood, bone marrow, heart, eye, central nervous system, reproductive and fertility effects. The minor ingredient, 1,2-butylene oxide is classified by IARC as a Group 3 material, which exhibits limited evidence of carcinogenicity in experimental animals and no human data.



Gloves



Suit

9. Physical and chemical properties

Appearance & Odor	Clear, colorless liquid with characteristic odor.
Initial boiling point and boiling range	160° F (71o C)
Evapouration rate	(nBuAc=1): 6.0
Percent Volatile	100%
Vapour pressure	111 mm Hg @ 20°C
Vapour density	~4.3
Specific Gravity	1.35
Solubility	.25g /100 ml @ 20ºC

10. Stability and reactivity

Stability	Stable
Conditions to avoid	Sources of ignition such as sparks, hot spots, welding, flames and cigarettes. Ignition/flash may result if concentration of product is in the flammable range. (See section IV for LEL and UEL values.)
Incompatible materials	Not compatible with certain plastics and rubber. Test all non-metals prior to use. Avoid strong oxidizers, acids and bases, acid chlorides, and anhydrides.
Hazardous decomposition products	May form hydrogen bromide, and oxides of carbon.
Hazardous Polymerization	Will not occur.

11. Toxicological information

Product Information	Oral LD50 Category 3. ATE = 50 - 300 mg/kg. Dermal LD50 Category 3. ATE = 200 - 1000 mg/kg. Vapor LC50 Category 3. ATE = 2 - 10 mg/l.
Toxicologically Synergistic Products	No information available
Irritation	Causes burns by all exposure routes.
Sensitization	May cause sensitization by skin contact
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.
Mutagenic Effects	Mutagenic effects have occurred in humans.
Reproductive Effects	Experiments have shown reproductive toxicity effects on laboratory animals.
Developmental Effects	Developmental effects have occurred in experimental animals. Component substance is listed on California Proposition 65 as a developmental hazard.
Teratogenicity	Teratogenic effects have occurred in experimental animals.
STOT	Single exposure Respiratory system Central nervous system (CNS) Optic nerve
STOT	Repeated exposure Kidney Liver Heart spleen Blood
Aspiration hazard	No information available
Symptoms / effects,both acute and delayed	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptomsof allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
Endocrine Disruptor Information	No information available
Other Adverse Effects	The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity	Do not empty into drains. The product contains following substances which are hazardous for the environment.
Persistence and degradability	Miscible with water Persistence is unlikely based on information available.
Bioaccumulative potential	No information available.
Mobility in soil	Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN number	UN1198
UN proper shipping name	FORMALDEHYDE SOLUTIONS, FLAMMABLE
Hazard Class	3
Subsidiary Hazard Class	8
Packing Group	III

TDG

UN number	UN1198
UN proper shipping name	FORMALDEHYDE SOLUTIONS, FLAMMABLE

Hazard Class	3
Subsidiary Hazard Class	8
Packing Group	III

IATA

UN number	UN1198
UN proper shipping name	FORMALDEHYDE SOLUTIONS, FLAMMABLE
Hazard Class	3
Subsidiary Hazard Class	8
Packing Group	III

IMDG/IMO

UN number	UN1198
UN proper shipping name	FORMALDEHYDE SOLUTIONS, FLAMMABLE
Hazard Class	3
Subsidiary Hazard Class	8
Packing Group	III

15. Regulatory information

TSCA 12(b)	Notices of Export Not applicable
SARA 313	No data availble
SARA 311/312 Hazard Categories See section 2 for more information	Hazard Categories See section 2 for more information
CWA (Clean Water Act)	No data availble
Clean Air Act	No data availble
OSHA	Occupational Safety and Health Administration
CERCLA	This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)
California Proposition	65 This product contains the following proposition 65 chemicals
U.S. Department of Transportation	Reportable Quantity (RQ): Y DOT Marine Pollutant N DOT Severe Marine Pollutant N
Other International Regulations	Mexico - Grade Moderate risk, Grade 2

16. Other information

Other Information	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 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 Rx Marine International has been advised of the possibility of such damages. DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.