Material Safety Data Sheet

Hydrated Lime (RXSOL-96-1637-025)

1. Product and Company Identifaction

Product Name	**Hydrated Lime**
Product Type	**RXSOL-19-1637-025**

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

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

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2. Composition / informationon ingredients

Ingredient	CAS	OSHA PEL, TWA 8/40h (mg/m3)	ACGIH TLV, TWA 8/40h (mg/m3)	NIOSH REL, TWA 8/40h (mg/m3)	NIOSH IDLH (mg/m3)	Conc. (%)
Calcium Hydroxide, Ca(OH)2 (Hydrated Lime)	1305-62-0	15 (total dust) 5 (respirable)	5	5	N.A.	> 92
Magnesium Hydroxide, Mg(OH)2 (Brucite)	1309-42-8	N.A.	N.A.	N.A.	N.A.	4
Magnesium Oxide, MgO (Periclase)	1309-48-4	10	10	N.A.	N.A.	3
Calcium Carbonate, CaCO3 (Limestone)	1317-65-3 (471-34-1)	15 (total dust) 5 (respirable)	10	10 (total dust) 5 (respirable)	N.A.	2
Crystalline Silica, SiO2 (Quartz)	14808-60-7	10/(SiO2% + 2) (respirable)	0.025 (respirable)	0.05 (respirable)	50	2

3. Hazards Identification

Emergency Overview:	Hydrate is an odorless white or grayish-white powder. Contact can cause irritation to eyes, skin,respiratory system, and gastrointestinal tract.
Potential Health Effects	
Eyes:	Contact can cause severe irritation or burning of eyes, including permanent damage.
Skin:	Contact can cause irritation of skin.
Ingestion:	This product can cause severe irritation of gastrointestinal tract if swallowed.
Inhalation:	This product can cause severe irritation of the respiratory system. Long-term exposure may cause permanent damage. Hydrate is not listed by MSHA, OSHA, or IARC as a carcinogen However, this product may contain trace amounts of crystalline silica in the form of quartz or crystobalite, which has been classified by IARC as a Group I carcinogen to humans when inhaled. Inhalation of silica can also cause a chronic lung disorder, silicosis.
Medical	
Conditions Aggravated by Exposure:	Contact may aggravate disorders of the eyes, skin, gastrointestinal tract, and respiratory system.
Potential	
Environmental Effects:	This material is alkaline and if released into water or moist soil will cause an increase in pH.

4. First Aid Measures

Eyes:	Immediately flush eyes with generous amounts of water or eye wash solution if water is unavailable. Pull back eyelid while flushing to ensure that all lime dust has been washed out. Seek medical attention promptly if the initial flushing of the eyes does not remove the irritant. Do not rub eyes.
Skin:	Brush off or remove as much dry lime as possible. Wash exposed area with large amounts of water. If irritation persists, seek medical attention promptly.
Inhalation:	Move victim to fresh air. Seek medical attention. If breathing has stopped, give artificial respiration.
Ingestion:	Do not induce vomiting. Seek medical attention immediately. Never give anything by mouth unless instructed to do so by medical personnel.

5. Fire-fighting Measures

Fire Hazards:	Hydrate is not combustible or flammable. However, hydrate reacts vigorously with acids, and may release heat sufficient to ignite combustible materials in specific instances.Hydrate is not considered to be an explosion hazard, although reaction with acids or other incompatible materials may rupture containers.
Hazardous Combustion Products:	None
Extinguishing Media:	Use dry chemical fire extinguisher. Do not use water or halogenated compounds, except that large amounts of water may be used to deluge small quantities of hydrate.
Fire Fighting Instructions:	Keep personnel away from and upwind of fire. Avoid skin contact or inhalation of dust. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

6. Accidental Release Measures

Spill / Leak Procedures:	Do Not use water on bulk material spills. Use proper protective equipment.
Small Spills:	Use dry methods to collect spilled materials. Avoid generating dust. Do not clean up with compressed air. Store collected materials in dry, sealed plastic or non-aluminum metal containers. Residue on surfaces may be water washed.
Large Spills:	Use dry methods to collect spilled materials. Evacuate area downwind of clean-up operations to minimize dust exposure. Store spilled materials in dry, sealed plastic or non-aluminum metal containers.
Containment:	Minimize dust generation and prevent bulk release to sewers or waterways.
Clean-up:	Residual amounts of material can be flushed with large amounts of water. Equipment can be washed with either a mild vinegar and water solution, or detergent and water.

7. Handling and Storage

Handling:	Keep in tightly closed plastic or non-aluminum metal containers. Protect containers from physical damage. Avoid direct skin contact with the material.
Storage:	Store in a cool, dry, and well-ventilated location. Do not store near acids or other incompatible materials. Keep away from moisture. Do not store or ship in aluminum containers

8. Exposure controls and personal protection

Engineering Controls:	Provide ventilation adequate to maintain PELs.
Respiratory Protection:	Use NIOSH/MSHA approved respirators if airborne concentration exceeds PELs.
Skin Protection:	Use appropriate gloves and footwear to prevent skin contact. Clothing should fully cover arms and legs. Should lime get inside clothing or gloves, remove the clothing and the lime promptly.

Eye Protection:	Use safety glasses with side shields or safety goggles. Contact lenses should not be worn when working with lime products.
Other:	Eye wash fountain/stations and emergency showers should be available.

9. Physical and chemical properties

Appearance	: White or grayish-white powder
Boiling Point (°C/°F)	: 2850 / 5162
Vapor Pressure (mm Hg)	: N.A .
Solubility in Water	: Slightly soluble in water.
Odor	: Odorless
Melting Point (°C/°F)	: Dec 580 / 1076
Vapor Density	: N.A.
pH (25°C/77°F)	: 12.4
Physical State	: Solid
Specific Gravity	: (Apparent) g/cc: 0.4 - 0.55 : (True) g/cc: 2.2 - 2.4
Evaporation Rate	: N.A.

10. Stability and reactivity

Stability: Chemically stable, but slowly reacts with carbon dioxide to form calcium carbonate. See also Incompatibility below.

Hydrate should not be mixed or stored with the following materials, due to the potential for vigorous reaction and release of heat

Incompatibility/ Conditions to Avoid:

Acids (unless in a controlled process)	Organic Acid Anhydrides
Reactive Fluoridated Compounds	Nitro-Organic Compounds
Reactive Brominated Compounds	Reactive Phosphorous Compounds
Reactive Powdered Metals	Interhalogenated Compounds

Hazardous Decomposition Products: None

Hazardous Polymerization: None

11. Toxicological information

ORL-RAT LD50: 7,340 MG/KG
ORL-MUS LD50: 7,300 MG/KG
Hydrated Lime is not listed by MSHA, OSHA, or IARC as a carcinogen, but this product may contain trace amounts of crystalline silica, which has been classified by IARC as carcinogenic to humans when inhaled in the form of quartz or crystobalite.

12. Ecological information

Ecotoxicity: Because of the high pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems in high concentrations.

Environmental Fate: This material shows no bioaccumulation effect or food chain concentration toxicity.

13. Disposal considerations

Dispose of in accordance with all applicable federal, state, and local environmental regulations. If this product as supplied, and unmixed, becomes a waste, it will not meet the criteria of a hazardous waste as defined under the U.S. Resource Conservation and Recovery Act (RCRA).

14. Transport information

Hydrate is not classified as a hazardous material by US DOT and is not regulated by the Transportation of Dangerous Goods (TDG) when shipped by any mode of transport.

15. Regulatory information

U.S.EPA Regulations	RCRA Hazardous Waste Number (40 CFR 261.33): not listed RCRA Hazardous Waste Classification (40 CFR 261): not classified CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311(b)(4); CWA, Sec. 307(a), CAA, Sec. 112 CERCLA Reportable Quantity (RQ), not listed SARA 311/312 Codes: not listed SARA Toxic Chemical (40 CFR 372.65): not listed SARA EHS (Extremely Hazardous Substance) (40 CFR 355): not listed, Threshold Planning Quantity (TPQ): not listed All chemical ingredients are listed on the USEPA TSCA Inventory List.
OSHA/MSHA Regulations:	Air Contaminant (29 CRF 1910.1000, Table Z-1, Z-1-A): 5mg/M3 TWA-8 MSHA: not listed OSHA Specifically Regulated Substance (29 CFR 1910): not listed
State Regulations:	Consult state and local authorities for guidance. Components found in this product may contain trace amounts of inherent naturally occurring elements (such as, but not limited to arsenic and cadmium) that may be regulated.
Canada:	WHMIS Classification: "D2A" Materials Causing Other Toxic Effects WHMIS Classification: "E" Corrosive Materials (listed due to corrosive effect on aluminum) Canada DSL: Listed

NFPA Hazard Class:	Health: 1	Flammability: 0	Reactivity: 0	
HMIS Hazard Class:	Health: 1	Flammability: 0	Reactivity: 0	Personal Protection: E

16. Other information

Text of R and S phrase codes used in this safety data sheet:- R34: Causes burns; R36: Irritating to eyes; R37:Irritating to respiratory system; R41: Risk of serious damage to eyes. The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer.

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