Material Safety Data Sheet

Molecular Sieve APG 13X Absorbent and Catalyst (RXSOL-24-8587-013)

1. Product and Company Identifaction

Product Name	Molecular Sieve APG 13X Absorbent and Catalyst
Product Type	RXSOL-24-8587-013

Company Details:

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

Stock Point : Mumbai, Kolkata, Chennai, Gandhidham, Visakhapatnam, Fujairah, Muscat

Phone	+91 22 27815541 / 42
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	mail@rxmarine.com

2. Composition / informationon ingredients

Ingredient	CAS No	Percent
Silicon oxide (synthetic)	7631-86-9	65.00 %
Aluminum oxide (non-fibrous)	1344-28-1	50.00 %
Sodium oxide	1313-59-3	20.00 %
Magnesium oxide	1309-48-4	10.00 %
Quartz (SiO2)	14808-60-7	5.00 %

3. Hazards Identification

Emergency Overview

Form : beads or pellets

Color : white to tan

Odor : none

HazardSummary : Repeated or prolonged exposure may irritate eyes, skin and respiratory system. When first wetted, the product can heat up to the boiling point of water. Flood with water to cool material. Repeated and prolonged inhalation of crystalline silica in the form of quartz from occupational sources may cause cancer.

Skin : May cause skin irritation. The product gets hot as it first adsorbs water.

Eyes : Dust and/or product may cause eye discomfort and/or irritation seen as tearing and reddening.

Ingestion : The product gets hot as it first adsorbs water. Burns to moist body tissue can result if contact is prolonged.

Inhalation : Exposure to dust particles generated from this material may cause irritation of the respiratory tract. Repeated and prolonged inhalation of crystalline silica in the form of quartz from occupational sources may cause cancer. Chronic Exposure : Prolonged or repeated inhalation may cause lung injury/cancer.

Primary Routes of Entry : Contact with skin and eyes. Exposure may also occur via inhalation or ingestion if product dust is generated.

4. First Aid Measures

Inhalation	Remove to fresh air. If symptoms persist, call a physician
Skin contact	Wash off with soap and plenty of water. If skin irritation persists, call a physician
Eye contact	Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, consult a physician
Ingestion	Drink at least 2 glasses of water. Obtain medical attention. Never give anything by mouth to an unconscious person
Notes to physician Treatment	This product is a desiccant and generates heat as it adsorbs water. The used product can contain material of a hazardous nature. Identify that material and treat symptomatically.

5. Fire-fighting Measures

Suitable extinguishing media : Not combustible.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards during firefighting : The product itself does not burn. The used product can retain material of a hazardous nature. Identify that material and inform the fire fighters.

Special protective equipment for firefighters : In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

6. Accidental Release Measures

Personal precautions : For personal protection see section 8. Environmental precautions : No special environmental precautions required. Methods for cleaning up : Sweep, shovel or vacuum spilled product into appropriate containers (do not use a vacuum if material has contacted a hydrocarbon material). Pick up and arrange disposal without creating dust. Never return spills in original containers for re-use. Spilled product should be disposed of in accordance with all applicable government regulations.

Personal Precautions	For personal protection see section 8
Environmental Precautions	No special environmental precautions required
Methods for cleaning up	Sweep, shovel or vacuum spilled product into appropriate containers (do not use a vacuum if material has contacted a hydrocarbon material). Pick up and arrange disposal without creating dust. Never return spills in original containers for re-use. Spilled product should be disposed of in accordance with all applicable government regulations.

7. Handling and Storage

Handling : Handle and open container with care. Avoid dust formation.

Avoid contact with skin and eyes.

Provide an electrical ground connection during loading and transfer operations to avoid static discharge in an explosive atmosphere and to prevent persons handling the product from receiving static shocks.

A copy of UOP's booklet, "Precautions & Safe Practices for Handling Zeolite Molecular Sieve Adsorbents in Process Units", can be obtained from your UOP representative at no cost.

Storage Requirements for storage areas and containers : Store in original container. Keep in a dry place.

8. Exposure controls and personal protection

Protective measures : Handle in accordance with good industrial hygiene and safety practice.

Engineering measures : Ensure adequate ventilation, especially in confined areas.

Eye protection : Safety glasses Safety goggles

Hand protection : Protective gloves

Skin and body protection : Work uniform and gloves to prevent prolonged contact.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Breathing apparatus with filter: NIOSH classification N-100 or if oil/liquid aerosols are present P-100 (42 CFR 84).

9. Physical and chemical properties

Physical state : beads or pellets

Color : white to tan

Odor : none

pH : Note: not applicable

Melting point/freezing point : > 400 °C

Boiling point/boiling range : Note: not applicable

Flash point : Note: not applicable

Density : > 2.0 g/cm3

Water solubility : Note: insoluble

Solubility in other solvents : Note: insoluble

10. Stability and reactivity

Chemical stability : Stable

Incompatible materials to avoid : Sudden contact with high concentrations of chemicals having high heats of adsorption such as olefins, HCl, etc. When first wetted, the product can heat up to the boiling point of water. Flood with water to cool material.

Hazardous decomposition products : No decomposition if used as directed. Hydrocarbons and other materials that contact the product during normal use can be retained on the product.

11. Toxicological information

Acute oral toxicity : LD50 Oral: > 32,000 mg/kg Species: rat

Acute inhalation toxicity : Note: no data available

Acute dermal toxicity : LD50 Dermal: > 2,000 mg/kg Species: rabbit

Skin irritation : Species: rabbit Classification: Not classified as a skin irritant in animal testing.

Eye irritation : Species: rabbit Result: Mild eye irritation

Further information : Note: The toxicological data has been taken from products of similar composition.

12. Ecological information

Ecotoxicity effects

Toxicity to fish : Note: no data available

Toxicity to daphnia and other aquatic invertebrates : Note: no data available

Toxicity to algae : Note: no data available

Elimination information (persistence and degradability) Bioaccumulation : Note: no data available

Mobility : Note: no data available

Biodegradability : Note: no data available

Further information on ecology

Additional ecological information : No information on ecology is available.

13. Disposal considerations

Disposal methods :

This product (in its fresh unused state) is not listed by generic name or trademark name in the U.S. EPA's RCRA regulations and does not possess any of the four identifying characteristics of hazardous waste (ignitability, corrosivity, reactivity or toxicity). Materials of a hazardous nature that contact the product during normal use may be retained on this product. The user of the product must identify the hazards associated with the retained material in order to assess the waste disposal options.

14. Transport information

DOT Not dangerous goods

TDG Not dangerous goods

IATA Not dangerous goods

IMDG Not dangerous goods

15. Regulatory information

Inventories

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL list.

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA

New Zealand : On the inventory, or in compliance with the inventory National regulatory information

SARA 302 Components : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards : Chronic Health Hazard

California Prop. 65 : WARNING! This product contains a chemical known to the State of California to cause cancer.

Quartz (SiO2) 14808-60-7

Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

16. Other information

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.