

1. Product and Company Identification

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Product Name

Silica Flour

Part Number

RXSOL-81-8119-030

Company Details:

RX MARINE INTERNATIONAL

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2. Composition / Information on ingredients

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Name	of	Substance	Cas Number
SiO ₂			14808-60-7
Al ₂ O ₃			1344-28-1
Fe ₂ O ₃			1309-37-1
TiO ₂			13463-67-7

3. Hazards Identification

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Principle routes of exposure

Inhalation.Eye contact

Main health hazards

Respirable dust **CANCER HAZARD**.This product May contain small amounts of respirable Crystalline silica .Crystalline silica is listed by IARC in Group 1 as known to cause lung cancer In humans,if inhaled.Risk of cancer depends on Duration and level of exposure.

Main environmental hazards

None

Other hazards

Dust.

Chronic Effects

The adverse health effects:silicosis,cancer,Autoimmune,diseases,tuberculosis,and Nephrotoxicity; and other health effects.Inhalation:Silicosis Respirable crystalline silica (quartz) can cause silicosis,a fibrosis(scarring) of the lungs. Silicosis is Progressive; it may lead to disability and Death.

- Cancer Crystalline silica (quartz) inhaled From occupational sources is classified as Carcinogenic to humans.
- Autoimmune Diseases There are some Studies that show excess numbers of Cases of scleroderma and other Connective tissue disorders in workers Exposed to respirable crystalline silica.
- Tuberculosis Silicosis increases the risk Of tuberculosis.
- Nephrotoxicity There are some studies That show an increased incidence of Chronic kidney disease and end-stage renal disease in workers exposed to Respirable crystalline silica.

4. First Aid Measures

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Eye Contact	Rinse with water.
Skin Contact	Rinse with water.
Inhalation:	No specific first aid is necessary since the adverse effects of crystalline silica (quartz),Remove the person immediately if Needed,seek medical attention as needed.
Ingestion:	Rinse mouth. Consult a physician if necessary.Never
Notes to Physicians	Good personal hygiene is essential. Always wash your hands after handling food and/or drinkable liquids.Inhalation of dust may be associated with lung cancer with long term exposure.

5. Fire-fighting Measures

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Flammability	Non Flammable.
Fire hazard	Does not flash
Flash Point	Not Applicable
Autoignition temperature	Not Applicable
Flammability limits in air	
Lower	Not Applicable
Upper	Not Applicable
Oxidizing properties	None
Suitable extinguishing media	None needed .The product itself does not burn. Use extinguishing Media suitable for surrounding.
Combustion products,or Released gases	None
Special protective Equipment for firefighters	Not applicable.

6. Accidental Release Measures

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Main physical hazards	No classified physical hazards.
Other Hazard	Dust
Personal precautions	Do not breathe dust. Wear suitable protective equipment.
Methods for cleaning up	Shovel into suitable container for disposal. After cleanup use appropriate methods(vacuum) if possible and Place into closable container for dry Sweep.Wear protective equipment specified below.
Environmental precautions	None

7. Handling and Storage

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Personal Handling	Do not breathe dust.Use adequate ventilation and dust control measures to keep dust below PEL.Do not rely on your sight to Determine if dust is visible.Dust cloud.If dust cannot be kept below permissible exposure limit when using handling,storage or Equipment.Maintain and test ventilation according to OSHA regulations.Maintain and test ventilation according to OSHA regulations. See also Control measures.
Safe handling advice	Provide appropriate exhaust ventilation at places where dust is generated.
Storage Condition	No special storage conditions required.
Packaging requirements	Paper bag (minimum 3ply) ,or other industrial container.
Incompatible products	None known.

8. Exposure controls and personal protection

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Hygiene measures

Respiratory protection

Eye protection

Hand protection

Keep airborne concentrations below exposure limits. Wear eye protection to prevent contact with eyes.

Use NIOSH approved respirator with dust mist protection. Do not breathe vapors. 5 times exposure limit. wear an

Safety glasses with side-shields.

Cotton gloves.



Gloves

9. Physical and chemical properties

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Chemical characterization	Inert (Inorganic).
Fire hazard	Not Combustible
Form	Soild/Powder
Colour	White -Tone
Odour	None
Odor threshold	Not Applicable
pH	Not Applicable
Boiling Point / Range	Not Applicable
Flash Point	Does not flash
Flamability in Air	
Lower	Not Applicable
Upper	Not Applicable
Bulk density	1100-1600kg/m3
Melting point/range	>1700°C /3092 °F
Decomposition temperature	Not Applicable
Water solubility	Insoluble.
Fat solubility	Insoluble.
Relative density	No data available
Specific Gravity	2.65 (@20 °C)
Vapor Pressure	Not Applicable
Vapor Density	Not Applicable
Viscosity	Not Applicable
Evaporation Rate	Not Applicable
% Volatile	None

10. Stability and reactivity

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Stability	Stable
Conditions to avoid	Not known
Incompatibility with other	Not known

Substances Hazardous Decomposition	None
Product Hazardous polymerization	None
Other hazards	Dust

11. Toxicological information

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Eye contact	May cause mechanical irritation.
Skin contact	No effect expected
Ingestion	Accidental ingestion of small amounts is not expected to cause adverse Effects.
Inhalation	Inhalation of dust may cause shortness of breath,tightness of the chest, A sore throat and cough. This product may contain small amounts of Respirable crystalline silica. Repeated or prolonged inhalation of Crystalline silica dust can cause delayed effects, including silicosis and lung cancer.
Sensitization	None
Toxicologically synergistic	Smoked tobacco
Products Carcinogenic effects	<p>Crystalline silica dust is listed by IARC in Group 1 as known to cause Lung cancer in humans, if inhaled Risk of cancer increases with duration And level of exposure.</p> <p>A.SILICOSIS The major concern is silicosis,caused by the inhalation And retention of respirable crystalline silica dust. Silicosis can exist in Several forms,chronic(or ordinary),accelerated,or acute.Chronic or Ordinary Silicosis (often referred to as Simple silicosis) is the most Common form of silicosis ,and can occur after many years of exposure To relatively low levels of airborne respirable crystalline silica dust.It is Further defined as either simple or complicated silicosis.Simple silicosis Is characterized by small lesions(shown as radiographic opacities) less than 1 centimeter in diameter,primarily in the upper lung zones.Often, Simple silicosis is not associated with symptoms or changes in Lung function or disability.Simple silicosis may be progressive and may Develop into complicated silicosis or massive fibrosis (PMF).Complicated silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 centimeter in diameter Although there may be no symptoms associated with complicated silicosis or PMF , the symptoms, if present,are shortness of breath, wheezing,cough and sputum production Complicated silicosis or PMF may be associated with decreased lung Function and can be disabling.Advanced complicated silicosis or PMF May lead to death.Advanced complicated silicosis or PMF can result in death secondary to the lung disease(cor pulmonale). Accelerated Silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period,the lung . Lesions can appear within five(5) years of the initial exposure.The Progression can be rapid .Accelerated silicosis is similar to chronic or Ordinary silicosis,except that the lung lesions appear more rapidly.The Progression is more rapid Acute Silicosis can occur with exposures to very high concentrations of Respirable crystalline silica over a very short time period,sometimes as Short as a few months. The symptoms of acute silicosis includes Progressive shortness of breath,fever,cough and weight loss.Acute Silicosis is fatal.</p> <p>B.CANCER IARC (The International Agency for Research on Cancer (IARC)) concluded that there was sufficient evidence that exposure of Humans for the carcinogenicity of crystalline silica in the forms of quartz Or cristobalite from occupational sources is Carcinogenic to humans (Group1)The IARC evaluation noted that the carcinogenicity was not detected in all industrial circumstances.Carcinogenicity may be dependent on inherent characteristics of the Crystalline silica or on external factors affecting the exposure activity or Distribution of its polymorphs. For further information on the IARC Evaluation,see IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals, Volume 49, Silica, Some Silicates, (1997). NTP.The National Toxicology Program ,in its Ninth Annual Report on Carcinogens,classified silica,crystalline (respirable) as a known Human carcinogen. OSHA-Crystalline silica (quartz) is not regulated by the U.S. Occupational Safety and Health Administration as a carcinogen.There Have been many articles published on the carcinogenicity of crystalline Silica,which the reader should consult for additional information,the Following are examples of recently published articles.</p> <p>(1)Crystalline Silica and Lung Cancer The Problem of Conflicting Evidence, Indoor Built Environ,Volume 8,pp.121-126 (1999); (2)Crystalline Silica and the risk of lung cancer on the potteries, Occup Environ.Med,Volume 55,pp.779-785(1998); (3) Required for Silica Associated Lung Cancer?, American Journal of Industrial Medicine,Volume 37, pp. 252-259(2000); (4)Silicosis ,and Lung Cancer: A Risk Assessment,American Journal of Industrial Medicine,Volume 38 pp. 8-18(2000); (5)Silicosis, And Lung Cancer: A Response to a Recent Working Group Report, Journal of Occupational and Environmental Medicine,Volume 42,pp. 704-702(2000).</p> <p>C.AUTOIMMUNE DISEASES There is evidence that Exposure to respirable crystalline silica (Without silicosis) or to crystalline silica with silicosis is associated with the increased incidence of several Autoimmune disorders,---scleroderma, systemic lupus erythematosus, Rheumatoid arthritis and diseases affecting the kidneys.For a review of The subject the following may be consulted; Exposure Crystalline Silica And Autoimmune Disease, Environmental Health Perspectives,Volume 107, Supplement 1 (1999): Occupational Scleroderma, Current Opinion In Rheumatology,Volume 11,pp.490-494 (1999),</p> <p>D.TUBERCULOSIS Individuals with silicosis are at increased risk to Develop pulmonary tuberculosis,if exposed to Mycobacterium tuberculosis.Tuberculosis.The following may be consulted for further information; Occupational Lung Disorders,Third Edition,Chapter 10,Silicosis and Related Diseases, Parkes,W.Raymond (1994);Risk of Pulmonary tuberculosis relative to silicosis and exposure to silica dust In South African gold miners,Occup Environ Med,Volume 55,pp.496-502(1998)</p>

	E. KIDNEY DISEASE There is evidence that exposure to respirable Crystalline silica (without silicosis) or that the disease silicosis is End stage renal disease. For additional information on Following may be consulted: [?] Kidney Disease and Silicosis [?] Nephron Volume 85, pp, 14-19 (2000).
Mutagenic effects	None
Teratogenic effects	None
Target organ effects	Silicosis, Lung cancer.

12. Ecological information

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Persistence/Degradability	Not Applicable
Main environmental hazards	None Crystalline silica (quartz) is not known to be ecotoxic; i.e. there is No data which suggests that crystalline silica (quartz) is toxic to birds, Fish, invertebrates, microorganisms or plants. For additional information. On crystalline silica (quartz), see Sections 9 (chemical Properties) and 10 (stability and reactivity) of this MSDS.
Aquatic toxicity	This product has no known eco-toxicological effects.
Bioaccumulation potential	None

13. Disposal considerations

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Waste from residues/ Unused products	Dispose of by injection or other acceptable method. Containers should be covered to Minimize generation of airborne dust.
Contaminated packaging	Dispose of in accordance with local regulations.

14. Transport information

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DOT, ADN, IMDG, IATA	Crystalline silica (quartz/Flour) is not a hazardous material. U.S. Department of Transportation Table of Hazardous Materials.
ADR	N/A
ADNR	N/A
RID	N/A
IATA	Not Regulated
IMO	Not Regulated
Transport in Bulk	Not Available

15. Regulatory information

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OSHA	Not available
HMIS (U.S.A)	Health Hazard: 1 Fire Hazard: 0 Reactivity: 0
National Fire Protection Association (U.S.A)	Health: 1 Flammability: 0 Reactivity: 0 Specific hazard

16. Other information

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