SAFETY DATA SHEET
- GARNET

Compilation date: JAN 10, 2024 Copyright date: 2024-2026

1. IDENTIFICATION

Product Name: Garnet

Other Name: Rock Garnet, Garnet Sand, Almandine Garnet, Blasting Media

Recommended Use: Blast Cleaning, Water-Jet Cutting Abrasive, Water Filtration Media, Material Polishing

Restrictions On Use: No information available

Supplier: Henan Becens Minerals Co.,Ltd.

Zhengzhou, Henan, China

Emergency Number: 008613838096145

Web: www.becens.com

2. HAZARDS IDENTIFICATION

Garnet is natural occurring mineral of the almandine variety. Garnet with the chemical composition of Fe3Al2Mg (SiO4), and other trace minerals as per CAS No for Almandine garnet 1302-62-1, is a Non-Hazardous substance.

Hazard Statements:

H350:May cause cancer through repeated inhalation exposure to crystalline silica.

H372: Prolonged or repeated inhalation exposure to crystalline silica causes lung effects (including silicosis, lung cancer, and breathing problems), immune system effects, and kidney effects.

Prevention:

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P260: Do not breathe dust/fumes.

P280: Use personal protective equipment as required.

Response:

P308+313 IF exposed or concerned: Get medical advice / attention.

P314: Get Medical advice / attention if you feel unwell.
Storage: P405 Store locked up.

Disposal:

P501 Dispose of contents / container in accordance with local / national regulations.

Eye: Dust may cause minor irritation. Particulate matter may scratch the cornea or cause other injuries to the eye.

Acute:

Skin: May cause minor irritation. Not absorbed through skin.

Ingestion: Relatively non-toxic. Ingestion is not anticipated under normal working conditions.

Inhalation: Product will act as a nuisance dust. Inhalation of high concentrations of dust may cause coughing and mild, transitory respiratory irritation. May cause slight to moderate irritation of mucous membranes.

Chronic:

Inhalation: Long-term dust inhalation in excess of the Permitted Exposure Limit (PEL) or Threshold Limit Value (TLV) may decrease the ability of the lungs to clear particulate matter, which may cause shortness of breath and increased susceptibility to respiratory disease.

Signs and Symptoms: Irritation, redness, pain, tear formation, blurred vision, light sensitivity, shortness of breath, decreased chest expansion, dry cough, and fatigue.

Medical Conditions Aggravated by Exposure: Repeated inhalation of dust over time may aggravate pre-existing respiratory diseases. Precautions should be taken to alleviate any pre-existing medical conditions.

Target Organs: Lungs

Carcinogenicity:

NTP: No

IARC: No

OSHA: No

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight (%)	Hazardous
Almandine Garnet (Fe3Al2Si3O12)	1302-62-1	97.8%	
Ilmenite (FeTiO3)	103170-28-1	< 1.0%	10
Calcium Carbonate (CaCO3)	471-34-1	< 0.2%	Yes, in crystalline form only
Zircon (ZrSiO4)	149040-68-2	< 0.2%	
Quartz (SiO2 Crystalline Silica)	14808-60-7	< 0.2%	10
Hematite (Fe2O3)	1317-60-8	< 1.0%	

4. FIRST AID MEASURES

No acute chronic health affects are known in workers arising from short- or long-term exposure to this product. Note that crystalline silica is present at low levels and chronic exposure, via dust inhalation, may cause silicosis and cancer.

Swallowed:

Non-toxic. There are no known health effects resulting from accidental ingestion of small amounts that may occur during normal handling. Ingestion of larger amounts may cause irritation due to abrasiveness. Seek medical attention if symptoms develop.

Eye:

Particle and dust exposure may cause eye irritation due to abrasiveness. Flush eyes with clean water for at least 15 minutes or until particles are removed. Seek medical attention if irritation

or soreness persists.

Skin:

There are no known health effects from skin contact that may occur during normal handling. Seek medical attention if symptoms develop. Contact with material under pressure

will damage skin by abrasion. Clean and dress any open wounds and seek medical attention.

Inhaled:

Exposure to dust created by use as a blast cleaning media may cause throat and lung irritation, coughing or shortness of breath. Move to fresh air and blow nose to remove particulates from nasal passages. Seek medical attention if symptoms persist.

Ingested:

DO NOT INDUCE VOMITING! Give large quantities of water or milk, if available. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

Inhaled:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

It is recommended that eyewash facilities are available in the workplace.

5. FIRE-FIGHTING MEASURES

Flammability: Non-flammable.

Flashpoint: Non-explosive.

General Hazard: This product is non-flammable and does not support combustion.

Special Hazard: None.

Extinguishing Media: Not a fire hazard. Use any means suitable to extinguish a surrounding fire.

6. ACCIDENTAL RELEASE MEASURES

No special precautions necessary. Storage areas should be ventilated and dust generation minimized when handling loose bulk product. Use good housekeeping to keep dust to a minimum.

Personal Precautions: Ventilate area of spill. Keep unnecessary and unprotected persons away from area of spill. Wear protective clothing as detailed in section 8.

Environmental Precautions: As far as possible, prevent the material entering a watercourse or storm water channel.

Small and Large Spills: Pick up and place in suitable container for reclamation or disposal, using a method that does not generate dust. Light residues can be washed with copious

amounts of water, particularly off vegetation, in order to minimize damage. The water should preferably the discharged to sewer, but if not available, small amounts can be discharged to watercourse.

7. HANDLING AND STORAGE

No special precautions are necessary. Storage areas should be ventilated and dust generation minimized when handling loose bulk product. Use good housekeeping practices to keep dust to a minimum.

Handling/Storage: Keep in waterproof packaging and protect from damage. Keep in a cool, dry, ventilated area away from heat, moisture and incompatible chemicals.

Suitable Material: Bulk bags or any other container that will limit contact with moisture.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards:

Crystalline silica (quartz) respirable dust: 0.1mg/m³

TWA (time weighted average) may be exceeded when the product is used for dry blast cleaning

Total Dust (inspirable): 10mg/m³TWA

Engineering Controls:

Maintain ventilation and/or dust collection to reduce exposure to dust generated during handling, use, and clean up. Maintain clean and safe work environments, monitor effectiveness.

Personal Protection:

Follow Local, State and Federal guidelines for the use of personal protection equipment. Blast cleaning operations should use an air-fed abrasive blast hood. Hearing protection should also be worn when blast cleaning.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pink to red colored free flowing sand.

Odor: Odorless.

pH: 7.0 to 8.5.

Vapor Pressure: Not applicable.

Boiling Point: Not applicable.

Melting Point: Approximately 1250°C Solubility in Water: Insoluble.

Solubility Solvents: Not applicable Solubility Coefficient: Not applicable. Specific Gravity (H20 = 1): 3.9 - 4.

Bulk Density: 2.3 g/cm³

Flammability: Non-flammable. Hardness: 7.9 Mohs

Particle Size: Average range between 0.1-0.6mm, depending on grade

Flash point: Non-combustible.

Auto Flammability: Not applicable. Explosive Properties: None.

Oxidizing Properties: None.

10. STABILITY AND REACTIVITY

Chemical stability: Stable and inert material under normal and anticipated storage, handling and use conditions.

Conditions to Avoid: None known.

Incompatible Materials: None known. Decomposition: Not applicable.

Hazardous Reactions: None known.

11.TOXICOLOGICAL INFORMATION

Note that crystalline silica is present at low levels, typically less than 0.1%, and insoluble exposure to crystalline silica dust through inhalation may cause silicosis and cancer.

Acute Toxicity: No data available.

Skin and Eye Contact: No data available.

Carcinogenicity: Not expected to be carcinogenic; crystalline silica not present.

Mutagenicity: Not data available.

Reproductive Hazards: Not data available.

12. ECOLOGICAL INFORMATION

This material is a naturally occurring mineral with no known ecotoxicity. It is insoluble in water and unlikely to damage waterways or food chains.

Aquatic toxicity - Fish: No information reported.

Aquatic toxicity - Daphnia: No information reported. Aquatic toxicity - Algae: No information reported.

Biodegradability: Not biodegradable.

Bioaccumulation: No information reported.

Environmental fate - Air: Dust may be a nuisance factor.

Environmental fate - Soil: May have very low leachability in acidic soils.

Environmental fate - Water: No hazardous species are expected to leach into water and, therefore the product is not expected to be hazardous to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Follow Local, State and Federal guidelines for disposal of inert solid waste, e.g. for landfill

Disposal methods: All wastes should be evaluated according to the procedures required by the latest edition of department of water affairs and forestry's minimum requirements for the handing, classification and disposal of hazardous waste and disposed if in an appropriat

landfill. The material itself is expected to be non-hazardous but during use it may become contaminated.

Disposal of pack: Empty packaging may be disposed to a permitted general waste landfill.

UN Number: Not regulated.

IMDG-Class: Not regulated.

SABS 0228: Not regulated.

Material contaminated or reduced to dust in use may need special handling and disposal. It is the responsibility of the end user to evaluate, classify, and dispose of material after use.

14. TRANSPORT INFORMATION

No special precaution necessary. It is recommended to keep bags closed and dry. Bulk loads should be covered to prevent dust generation and moisture incursion.

15.REGULATORY INFORMATION

No known additional regulations for this product. UN

Number: NA

Substance Identity NO.: NA

IMDG-Class: NA

IMDG Packaging Group: Solid non-corrosive. Risk

phrases: Harmful if swallowed.

16. KEY

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service

DOT: Department of Transportation

IARC: International Agency for Research on Cancer MSHA: Mine Safety and Health Administration

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

SARA: Superfund Amendment and Reauthorization Act

TLV: Threshold Limit Valve

TSCA: Toxic Substance Control Act

NOTICE

This SDS summarizes, to our best knowledge at the date of issue, the chemical, health and safety hazards of the material and general guidance on how to safely handle the material in the workplace.Since Henan Becens Minerals Co., Ltd.cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. If clarification or further information is needed, the user should contact Henan Becens Minerals Co.,Ltd. at the contact details on page 1.Henan Becens Minerals Co.,Ltd.'s responsibility for the material as sold is subject to its terms and conditions of sale, a copy of which is available upon request.