



## Material: GARNET ABRASIVE

### MATERIAL SAFETY DATA SHEET

#### Section I. Identification of the Substance and of the Company

Product Name	Garnet Abrasive
Synonyms	Almandine and Pyrope Garnet
Relevant identified use(s)	Industrial Abrasive, Blast Cleaning Abrasives, Water Jet Cutting Abrasive
Distributor:	<b>GritSablare</b>
	<b>Headquarter:</b> 10 Eliza Zamfirescu Leonida Street, Bucharest
	<b>Storage &amp; Logistic:</b> Termele Romane Street (between Gate 1 / Gate 2), Constanța Seaport, Romania
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	<b>Fax:</b> (+4) 0372.870.589
	<b>Email:</b> comercialgritsablare@gmail.com
	<b>Website:</b> www.gritsablare.ro

#### Section II. Hazards Identification

Other Hazards	<ul style="list-style-type: none"> <li>According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.</li> <li>According to European Directive 1999/45/EC this material is not considered dangerous.</li> </ul>
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#### Section III. Mineral Composition

Mixtures	<b>Garnet (Almandite)</b>	98%
	<b>Ilmenite</b>	1 – 2%
	<b>Quartz</b>	0.5%
	<b>Others</b>	0.5%

## Section IV. Specifications

### Physical Characteristics

Specific Weight	4.1 g/cm <sup>3</sup>
Average Bulk	2.4 g/cm <sup>3</sup>
Hardness	7.5 – 8.0 (Mohs Scale)

### Other Characteristics

Crystal System	Cubic
Habit	Dodecadnedron with occasional Trapezohedron
Fracture	Sub-Conchoidal
Durability	Very good
Free Flow	90% Minimum
Susceptibility to Acid	None
Moisture Absorption	Non Hygroscopic, Inert.
Magnetism	Very Slightly Magnetic
Conductivity	Less than 25 Microsiemens per Meter
Radio Activity	Not-detectable above background
Pathological Effects	None
Free Silica Content	None

### Analysis & Characteristics

Alumina <b>Al<sub>2</sub>O<sub>3</sub></b>	16.60 – 18.10%
Iron <b>Fe<sub>2</sub>O<sub>3</sub></b>	27.80 – 29.85%
Silica <b>SiO<sub>2</sub></b>	37.20 – 37.90%
Magnesium <b>MgO</b>	4.70 – 4.51%
Calcium <b>CaO</b>	4.95 – 9.48%
Titanium <b>TiO<sub>2</sub></b>	2.5 – 3.1%
Phosphorous <b>P<sub>2</sub>O<sub>5</sub></b>	0.05%
Manganese <b>MnO</b>	0.5%
Zircon <b>ZrO<sub>2</sub></b>	Traces
Chloride Content	Less than 20 ppm
Soluble Salts	Less than 90 ppm
Ph of Aqueous Medium	6.93
Gypsum Content	Nil
Moisture Content	Less than 0.5%
Carbonate Content	Traces
Loss on Ignition	Nil
Metal Content (Specifically Free Iron, Free Copper and Other Heavy Metals)	Traces

## Section V. First Aid Measures

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Inhalation	IF INHALED: Move victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention immediately.
Skin	In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water.
Eye	In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
Ingestion	Get medical attention if symptoms occur.
Notes to Physician	All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## Section VI. Firefighting Measures

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Suitable Extinguishing Media	In case of fire, use the same extinguishing methods and substances as for surrounding area of garnet abrasive. No special actions are necessary.
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## Section VII. Accidental Release Measures

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Personal Precautions	Do not walk through spilled material. Wear appropriate Personal Protective Equipment (PPE)
Emergency Procedures	As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions.
Environmental precautions	Avoid run off to waterways and sewers.
Containment/Clean-up Measures	Avoid generating dust. Sweep or vacuum up material for disposal or recovery.

## Section VIII. Handling and Storage

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Handling	No special precautions necessary for normal handling of the material. Use only with adequate ventilation. Do not breathe dust. Wear appropriate personal protective equipment, avoid direct contact.
Storage	No special precautions necessary for normal storage of the material. Keep container/package tightly closed and in a well-ventilated place. Store locked up.

## Section IX. Exposure Controls/Personal Protection

### Engineering Measures / Controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Respiratory

For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

### Eye/Face

Wear safety glasses.

### Skin/Body

Wear protective clothing and gloves.

### Environmental Exposure Controls

Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

## Section X. Physical and Chemical Properties

### Material Description

<b>Physical Form</b>	Solid
<b>Color</b>	Reddish brown to pink
<b>Appearance / Description</b>	Reddish brown to pink grains with no odor
<b>Odor</b>	Odorless

### General Properties

<b>Boiling Point</b>	Data not available
<b>Decomposition Temperature</b>	> 750°C (> 1,382°F)
<b>Specific Gravity/Relative Density</b>	4.1 Water = 1
<b>Water Solubility</b>	Insoluble
<b>Explosive Properties</b>	Non-explosive
<b>Melting Point</b>	1,315°C (2,399°F)
<b>Bulk Density</b>	2.4 g/cm <sup>3</sup>

### Flammability

<b>Flammability (solid, gas)</b>	Non-flammable
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## Section XI. Stability and Reactivity

### Reactivity

No dangerous reaction known under conditions of normal use.

### Chemical stability

Stable

Possibility of hazardous reactions      Hazardous polymerization will not occur

## Section XII. Stability and Reactivity

Inhalation	<ul style="list-style-type: none"> <li>▪ <b>Acute (Immediate):</b> Exposure to dust may cause irritation.</li> <li>▪ <b>Chronic (Delayed):</b> Inhalation of dusts released in the atmosphere containing crystalline silica may cause lung injury or disease including silicosis and/or cancer.</li> </ul>
Skin	<ul style="list-style-type: none"> <li>▪ <b>Acute (Immediate):</b> May cause abrasions.</li> <li>▪ <b>Chronic (Delayed):</b> No data available.</li> </ul>
Eye	<ul style="list-style-type: none"> <li>▪ <b>Acute (Immediate):</b> Exposure to dust may cause irritation.</li> <li>▪ <b>Chronic (Delayed):</b> No data available.</li> </ul>
Ingestion	<ul style="list-style-type: none"> <li>▪ <b>Acute (Immediate):</b> No known effects, however ingestion not recommended.</li> <li>▪ <b>Chronic (Delayed):</b> No data available.</li> </ul>
Carcinogenic Effects	<p>This product contains crystalline silica as cristobalite and/or quartz. IARC Monographs on Evaluation of Carcinogenic Risk of Chemicals to Humans (Monograph 68, 1997) concludes that there is sufficient evidence for the carcinogenicity of crystalline silica to humans (IARC Group I). Crystalline Silica is classified as a Known Carcinogen according to NTP.</p>

## Section XIII. Ecological Information

Toxicity	Material data lacking.
Persistence and degradability	Material data lacking.
Bio accumulative potential	Material data lacking.
Mobility in Soil	Material data lacking.
Results of PBT and vPvB assessment	No PBT and vPvB assessment has been conducted.
Other adverse effects	No studies have been found.

## Section XIV. Disposal Considerations

Product waste	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
Packaging waste	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Section XV. Transport Information

Special precautions for user	None specified.
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## Section XVI. Regulatory Information

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SARA Hazard Classifications

Chronic

Chemical Safety Assessment

No Chemical Safety Assessment has been carried out

Other Information

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

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