GMA Waterjet Garnet

June 2019 Revision 17

SECTION 1 - IDENTIFICATION OF MATERIAL AND SUPPLIER

- (a) GHS product identifier: GMA Waterjet Garnet
- (b) Other means of identification: Garnet sand, almandine garnet, alluvial garnet
- (c) Recommended use: Blast cleaning abrasive, water jet cutting abrasive, water filtration media.
- (d) Supplier's details:

GritSablare

Headquarter: Storage: Phone: Email: Website: Eliza Zamfirescu Leonida Street 10, Bucharest, Romania Constanța Seaport, Gate 2, SORENA Platform, Constanța, Romania (+4) 0722.279.481 <u>comercialgritsablare@gmail.com</u> www.gritsablare.ro

SECTION 2 - HAZARDS IDENTIFICATION

(a) GHS classification of the substance:

2513.20.00

(a) GHS label elements, including precautionary statements:

The product is dominantly garnet (almandine variety) which is a Non-Hazardous substance. Traces of dust in the unused product are from calcium carbonate which is also Non-Hazardous.

(b) Other hazards which do not result in classification:

The product does **not** contain asbestos. Do not breathe dust liberated from used product. Product may have become contaminated by use.

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SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

This material is a natural mixture of almandine garnet and other trace minerals.

Chemical Identity	Common Name	CAS Number	Proportion (weight %)
$Fe_3Al_2(SiO_4)_3$	Almandine Garnet	1302-62-1	> 96%
FeTiO ₃	Ilmenite	12168-52-4	< 3.5%
CaCO ₃	Calcium Carbonate (free)	471-34-1	< 1.0%
ZrSiO ₄	Zircon	14940-68-2	< 0.1%
SiO ₂	Crystalline Silica (free)	14808-60-7	< 0.1%

SECTION 4 - FIRST AID MEASURES

No acute or chronic health effects known in workers arising from short- or long-term exposure to this product.

(a) Description of first aid measures:

Ingestion:

Eye contact:

Skin contact:

Inhalation:

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 abdominal discomfort due to abrasiveness. Seek medical attention if symptoms develop.

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

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.

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.

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(b) Most important symptoms and effects, both acute and delayed:

- Ingestion:
 - Eye contact: No
 - No specific symptoms noted. No specific symptoms noted.
- Inhalation:

Skin contact:

No specific symptoms noted.

No specific symptoms noted.

- (c) Indication of immediate medical attention and special treatment needed, if necessary:
 - It is recommended that eyewash facilities are available in the workplace.

SECTION 5 - FIRE FIGHTING MEASURES

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

(a) Extinguishing media:

Non-flammable. Use media suitable for the surrounding materials.

(b) Specific hazards arising from the chemical:

None known.

(c) Special protective equipment and precautions:

No specific procedures given. Use protective equipment and precautions suitable for surrounding fire.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

(a) Personal precautions, protective equipment and emergency procedures:

No special precautions necessary. Wear safety equipment as for normal handling.

(b) Environmental precautions:

No special precautions necessary. This material should not be dumped in nature but collected and disposed of in accordance with local, state or federal guidelines.

(c) Methods and materials for containment and cleaning up:

If possible, vacuum the material to avoid generating unnecessary dust, otherwise, sweep and shovel any spillages.

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SECTION 7 - HANDLING AND STORAGE

(a) Precautions for safe handling:

No special precautions necessary.

(b) Conditions of safe storage, including any incompatibilities:

Storage areas should be ventilated and dust generation minimised when handling loose bulk product. Use good housekeeping practices to keep nuisance dust to a minimum.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

(a) Control parameters/Exposure Standards:

Crystalline silica (quartz) respirable dust: 0.1 mg/m3 TWA (time weighted average) may be exceeded when the product is used for dry blast cleaning, depending on material being blasted (respirable dust is \leq 7 microns particle equivalent aerodynamic diameter).

Total dust (inspirable): 10 mg/m3 TWA.

(b) Appropriate engineering controls:

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

(c) Individual protection measures:

Follow local, state or federal guidelines for the use of personal protection equipment. Blast cleaning operations should use an air fed abrasive blast hood conforming to relevant standards such as Australian Standards 1715,1716 and European Standard EN14594:2005 such as a Nova 2000, as well as leather (or equivalent) gloves and apron when in use. Hearing protection should also be worn when blast cleaning.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Pink to red coloured free flowing sand (a) Appearance Odour Odourless (b) Odour threshold Not applicable (c) (d) 8.0 - 9.0 pН Melting point Approx. 1250°C (2282°F) (e)Non-combustible (f) Flash point (q)**Evaporation** rate Not applicable (h) Flammability (solid, gas) Non-flammable (i) Upper / lower flammability or explosive limits Non-combustible (j) Vapour pressure Not applicable (k) Vapour density Not applicable 4.1 (1) Specific gravity (m) Solubility Insoluble Not detectable above background levels (n)Radioactivity 7.5 - 8.0 Mohs (0)Hardness (p)Particle size Average range between 0.1 – 0.6 mm (150 mesh - 30 mesh), depending on grade Particle shape Sub-angular (q)
- (r) Source
- (s) Bulk density
- (t) Volatile organic compounds content
- (u) Partition coefficient (N-octanol / water)
- (v) Auto-ignition temperature
- (w) Decomposition temperature
- (x) Viscosity
- SECTION 10 STABILITATE ȘI REACTIVITATE
 - (a) Reactivity
 - (b) Chemical stability
 - (c) Possibility of hazardous reactions
 - (d) Conditions to avoid
 - (e) Incompatible materials
 - (f) Hazardous decomposition products

- : Inert solid under normal and anticipated storage, handling and use conditions
- Stable solid under normal and anticipated storage, handling and use conditions.
- : None known

Alluvial

Approx. 2.3 t/m3 (145 lbs/ft3)

Below detectable limits

Not applicable

Not applicable

Not applicable

Not applicable

- : None known
- : None known
- : None known

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SECTION 11 - TOXICOLOGICAL INFORMATION

(a) Information on toxicological effects:

No acute or chronic health effects known in workers arising from short- or long-term exposure to this product. This product does not contain toxic substances above known reportable limits.

- (b) Symptoms related to physical, chemical and toxicological characteristics: None known.
- (c) Delayed and immediate effects and also chronic effects from short- and long-term exposure: None known.
- (d) Numerical measures of toxicity: None known.

SECTION 12 - ECOLOGICAL INFORMATION

(a) Ecotoxicity:

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

(b) Persistence and degradability:

Stable and inert product which is not readily biodegradable.

- (c) Bio-accumulative potential: This product is not bioaccumulating.
- (d) Mobility in soil: Below detectable limits.
- (e) Other adverse effects: None known.

SECTION 13 - DISPOSAL CONSIDERATIONS

(a) Disposal methods:

Follow local, state or federal guidelines for disposal of inert solid waste, e.g. for landfill.

(b) Waste disposal considerations:

MATERIAL CONTAMINATED OR REDUCED TO DUST IN USE MAY NEED SPECIAL HANDLING AND DISPOSAL. IT IS THE RESPONSIBILITY OF THE USER TO UNDERTAKE ANY EVALUATION CLASSIFICATION AND DISPOSAL OF MATERIAL AFTER USE.

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SECTION 14 - TRANSPORT INFORMATION

- (a) UN number
- (b) UN proper shipping name
- (c) Transport hazard class(es)
- (d) Packing group
- (e) Environmental hazards
- GMA
- (f) Special precautions for user

- None allocated
 Not classified for transportation
- Not classed as Dangerous under the ADG Code
- : Not classified for transportation
- Not classified as a marine pollutant. Does not meet the criteria of 2.9.3.3.1 "environmentally hazardous substances (aquatic environment)".
- : None necessary. It is recommended to keep bags closed and dry bulk loads covered to prevent dust generation and moisture incursion.
- : None allocated
- 251320

- (g) Hazchem code
- (h) Harmonised System code

SECTION 15 - REGULATORY INFORMATION

(a) Safety, health and environmental regulations/ legislation specific for the substance mixture:

GMA Waterjet Garnet is exempt from the obligation to register under REACH legislation (EC 1907/2006) Annex V 7.

This product is an inorganic substance and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

No known additional regulations for this product.

SECTION 16 - DISCLAIMER

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