

Safety Data Sheet
Marco Alluvial Garnet
SDS Revision Date: 06/22/2017

1. Identification

1.1. Product identifier
Product Identity
Alternate Names

Marco Alluvial Garnet - 12/20, 20/40, 30/60, 36, 80
Chemical Name: Garnet
Synonyms/Common Name: Garnet Abrasive Grains and Powder

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use
Application Method
Uses advised against

Abrasive Blasting Applications.
Abrasive Blasting Applications.
None known

1.3. Details of the supplier of the safety data sheet
Company Name

Marco Group International
3425 East Locust Street
Davenport, IA 52803

Emergency
24 hour Emergency Telephone No.
Customer Service: Marco Group International

800-252-7848
PH: 800-252-7848
FX: 800-735-6849

2. Hazard identification

2.1. Classification of the substance or mixture
Carc. 1A; H350 May cause cancer from repeated inhalation exposure to crystalline silica.
STOT RE 1; H372 Product contains silica: Prolonged or repeated inhalation exposure to crystalline silica causes lung effects (including silicosis, lung cancer, and breathing problems), immune system effects, and kidney effects.

2.2. Label elements
Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Danger

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.

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[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/fume.
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.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification*	Notes
Almandine (Al₂Fe₃(SiO₄)₃) CAS Number: 0001302-62-1	85 - 100	Not Classified	[1]
Quartz CAS Number: 0014808-60-7	<1	Acute Tox. 4; H332 STOT RE 1; H372 Carc. 1A; H350	[1][2][3]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] Prolonged or repeated inhalation of crystalline silica (quartz) causes lung effects (including silicosis, lung cancer, and breathing problems), immune system effects, and kidney effects.

*The full texts of the phrases are shown in Section 16.

4. First-aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, roll the person onto his or

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her side (the recovery position) if there are no obvious signs of injury and obtain immediate medical attention. Give nothing by mouth.

- Eyes** Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
- Skin** Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
- Ingestion** If swallowed and patient is symptomatic obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

- Inhalation: May cause irritation of nasal and respiratory tract.
Acute effects; Dust may cause irritation of the nose, throat and airways, resulting in coughing and sneezing. Certain susceptible individuals may experience wheezing (spasms of the bronchial airways) upon inhaling dust
Delayed effects: None known
Chronic effects: Prolonged or repeated exposure to crystalline silica causes lung effects (silicosis, lung cancer, and breathing problems), immune system effects, and kidney effects. Some studies suggest that cigarette smoking increased the risk of silicosis, bronchitis and lung cancer in persons also exposed to crystalline silica.
- Skin Contact: May cause irritation
Eye Contact: May cause irritation or abrasions
Ingestion: No known effect.

Medical Conditions

Aggravated by Exposure: Chronic respiratory disease may be aggravated by exposure to nuisance dust

Possible cancer hazard: Contains an ingredient which may cause cancer based on human data (See Section 3 for each ingredient). Risk of cancer depends on duration and level of exposure.

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use: water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.
Do not breathe dust / fume.

5.3. Advice for fire-fighters

No special procedures required. Use appropriate respiratory protection while extinguishing surrounding fire.

ERG Guide No. ----

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet.

Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Sweep or vacuum material for disposal or recovery. Material may be wetted with water to reduce dust and collected for reprocessing or disposal

7. Handling and storage

7.1. Precautions for safe handling

Use good housekeeping practices to reduce dust; use approved hand, eye and respiratory protection when handling. See sections 2 and 8 for further details. - [Prevention and Exposure Controls]

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Incompatible with strong oxidizing agents and strong acids.

Avoid conditions of extreme humidity. Store locked-up (see section 2 for further details. - [Storage])

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CASNo.	Ingredient	Source	Value
0001302-62-1	Almandine (Al ₂ Fe ₃ (SiO ₄) ₃)	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0014808-60-7	Quartz	OSHA	0.05 mg/m ³ TWA (respirable)
		ACGIH	TWA: 0.025 mg/m ³ (respirable)
		NIOSH	0.05 mg/m ³ TWA (respirable)
		Supplier	No Established Limit

The exposure limits for nuisance dust (particles not otherwise regulated):

OSHA PEL:	15 mg/m ³ TWA (total dust)
	5 mg/m ³ TWA (respirable fraction)
ACGIH TLV:	10 mg/m ³ TWA (inhalable fraction)
	3 mg/m ³ TWA (respirable fraction)

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8.2. Exposure controls

Respiratory If the respirable particulate exposure limit is exceeded, wear NIOSH-approved respiratory protection. According to OSHA, only a Type CE NIOSH-certified blasting airline respirator with positive pressure blasting helmet should be used for abrasive blasting (<https://www.osha.gov/Publications/OSHA3697.pdf>).

Eyes When mechanically working this product, safety glasses with side shields or coverall goggles are recommended for airborne dust exposures in excess of the applicable limits.

Skin Wear protective gloves and clothing to prevent skin contact.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Red, Pink, White or Grey Solid
Odor	Odorless
Odor threshold	Not determined
pH	Not Applicable
Melting point / freezing point	1250°C to 1315°C
Initial boiling point and boiling range	Not Applicable
Flash Point	Not Applicable
Evaporation rate (Ether = 1)	Not Applicable
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Applicable Upper Explosive Limit: Not Applicable
Vapor pressure (Pa)	Not Measured
Vapor Density	Not Applicable
Specific Gravity	3.9-4.1 (Water=1)
Solubility in Water	Not Soluble
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Applicable
Solubility in other solvents	Not soluble in oil and acetone

9.2. Other information

No other relevant information

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10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Incompatible with strong oxidizing agents and strong acids.

10.6. Hazardous decomposition products

No hazardous decomposition data available.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust LC50 mg/L/4hr	Inhalation Gas LC50 ppm
Almandine (Al ₂ Fe ₃ (SiO ₄) ₃) (1302-62-1)	No data available	Not applicable	Not applicable	No data available	Not applicable
Quartz (14808-60-7)	No data available	Not applicable	Not applicable	No data available	Not applicable

Carcinogenicity

Ingredient	Source	Evaluation
Almandine (Al ₂ Fe ₃ (SiO ₄) ₃) (1302-62-1)	OSHA	Not evaluated or listed
	NTP	Not evaluated or listed
	IARC	Not evaluated or listed
Quartz (14808-60-7)	OSHA	Human carcinogen
	NTP	Known to be a human carcinogen
	IARC	Carcinogenic to humans (Group 1)
	ACGIH	Suspected human carcinogen (A2)

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	1a	Contains silica, a human carcinogen

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Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	1	Contains silica: Causes damage to lungs, respiratory tract, immune system and kidneys through prolonged or repeated inhalation.
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Almandine (Al ₂ Fe ₃ (SiO ₄) ₃) - (1302-62-1)	Not Available	Not Available	Not Available
Quartz - (14808-60-7)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Follow local, state and federal guidelines for disposal of inert solid waste.

MATERIAL CONTAMINATED IN USE MAY REQUIRE SPECIAL HANDLING.

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14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1 UN number	Not Applicable	Not Regulated	Not Regulated
14.2 UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3 Transport hazard class(es)	DOT Hazard Class:	IMDG: Not Applicable	Air Class: Not Applicable
14.4 Packing group	Not Applicable	Not Applicable	Not Applicable
14.5 Environmental hazards			
IMDG:	Marine Pollutant: No		
14.6 Special Precautions for user	No further information		

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification D2A

US EPA Tier II Hazards

- Fire:** No
- Sudden Release of Pressure:** No
- Reactive:** No
- Immediate (Acute):** No
- Delayed (Chronic):** Yes

EPCRA 311/312 Chemicals and RQs:
 To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:
 To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
 To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%): Quartz

Proposition 65 - Developmental Toxins (>0.0%):
 To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
 To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

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Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Pennsylvania RTK Substances (>1%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H332 Harmful if inhaled.

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

H372 Causes damage to lungs, immune system and kidneys through prolonged or repeated inhalation exposure to crystalline silica.

END OF DOCUMENT