

Barton Garnet

Company:

AGP s.a.s 20, avenue Reille 75014 PARIS

Tel. +33 (0) 1 45 89 84 44 Fax +33 (0) 1 45 89 66 54

E-mail: contact@agp-abrasifs.com

1 – Identification of the substance

Product Name: GARNET

Synonym: Almandine and Pyrope Garnet

Product Code: -

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s): Industrial abrasives

2 – Hazards Identification

EU/EEC

According to Regulation (EC) n° 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

Classification of the substance or mixture

CLP Not classified

Label Elements

CLP

Hazard statements No label element(s) required

Other Hazards

CLP According to Regulation (EC) n° 1272/2008 (CLP) this material is not

considered hazardous

3 – Composition/information on Ingredients

Substances

Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Almandine- Ferric	CAS:1302-62-1	94% to 99.6%	NDA	EU CLP: Not classified	NDA
Quartz	CAS:14808-60-7 EC Number:238-878-4	< 0.5%	NDA	EU CLP: Self Classified: STOT RE 1, H372	NDA

Iron	CAS:7439-89-6 EC Number:231-096-4	0.01% to 0.2%	Ingestion/Oral- Rat LD50 • 750 mg/kg	EU CLP: Self Classified: STOT SE 3: Resp. Irrit., H335; STOT RE 2 (Lungs, Liver), H373; Acute Tox. 4 (oral), H302	NDA
Hornblende	CAS:12178-42-6	0.01% to 0.2%	NDA	EU CLP: Not Classified	NDA
Feldspars	CAS:68476-25-5 EC Number:270-666-7	0.01% to 0.2%	NDA	EU CLP: Not Classified	NDA

4 – First Aid Measures

Description of first aid measures

Inhalation Move victim to fresh. Administer oxygen if breathing is difficult. Give artificial

respiration if victim is not breathing.

Skin In case of contact with substance, immediately flush skin with running water for at least 20

minutes.

Wash skin with soap and water.

Eve 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 Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

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.

5 – Fire Fighting Measures

Extinguishing media

Suitable Extinguishing Media In case of fire use media as appropriate for surrounding fire.

Unsuitable Extinguishing Media No data available.

Special hazards arising from the substance or mixture
Unusual Fire and Explosion Hazards
None

Hazardous Combustion Products No data available.

Advice for firefighters

Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only

provide limited protection.

6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

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.

Methods and material for containment and cleaning up Containment/Clean-up Avoid generating dust.

Measures Sweep or vacuum up material for disposal or recovery.

Reference to other sections

Refer to Section 8 - Exposure Controls/Personal Protection and Section

13 - Disposal Considerations.

7- Handling and Storage

Precautions for safe handling

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.

Conditions for safe storage, including any incompatibilities

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.

Specific end use(s) Refer to Section 1- Relevant identified uses.

8 – Exposure Controls / Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines				
Result ACGIH				
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)		

Exposure controls

Engineering Good general ventilation should be used. Ventilation rates should be matched to **Measures/controls** conditions. If applicable, use process enclosures, local exhaust ventilation, or other conditions.

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.

Personal Protective

Equipment 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 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.

Key to abbreviations

MAK =

exposure Controls

ACGIH = American Conference of Governmental Industrial PEL = Permissible Exposure Level determined by the

Hygiene Occupational Safety and Health Administration (OSHA)

LLV = Limit Level Values is the exposure limit for STEL = Short term Exposure Limits are based on 15 minute

8-ur work day exposures
Maximale Arbeitsplatz Konzentration is the STEV = Short Term Exposure Value

maximum permissible concentration

MAC = Maximum Allowable Concentration TLV = Threshold Limit Value determined by American

Conference of Governmental Industrial Hygiene

(ACGIH)

NIOSH = National Institute of Occupational Safety and TWA Time-Weighted Averages are based on 8h/day,

9 – Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Reddish brown to pink grains with no odor.
Color	Reddish brown to pink.	Odor	Odorless
Particulate Size	Varies upon customer demand	Odor Threshold	Data lacking
General Properties			
Boiling Point	Data lacking	Melting Point	1315 °C (2399 °F)
Decomposition Temperature	> 750 C(> 1382 F)	рН	Not relevant
Specific Gravity/Relative Density	4.1 Water=1	Bulk Density	2.4 g/cm ³
Water Solubility	Insoluble	Viscosity	Data lacking
Explosive Properties	Non-explosive	Oxidizing Properties:	Data lacking
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant	VOC (Wt.)	Not relevant
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Data lacking
Flammability (solid, gas)	Non-flammable		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

Other Information

No additional physical and chemical parameters noted.

10 – 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.

Conditions to avoidNo data available.

Incompatible materialsNone known.Hazardous decomposition productsNone known.

11 – Toxicological Information

Information on toxicological effects

		in the matter of the configuration of the configura				
	Components					
Iron (0.01% TO 0.2%)	7439- 89-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 750 mg/kg; Blood: Changes in serum composition (e.g., TP, bilirubin cholesterol); Biochemical: Enzyme inhibition, induction, or change in blood or tissue				
Quartz (< 0.5%)	14808- 60-7	Acute Toxicity: Inhalation-Human TCLo • 16 mppcf 8 Hour(s) 17.9 Year(s)-Intermittent; Lungs, Thorax, or Respiration: Fibrosis, focal (pneumoconiosis); Lungs, Thorax, or Respiration: Cough; Lungs, Thorax, or Respiration: Dyspnea; Inhalation-Rat TCLo • 200 mg/kg; Lungs, Thorax, or Respiration: Fibrosis, focal (pneumoconiosis); Lungs, Thorax, or Respiration: Other changes; Nutritional and Gross Metabolic: Changes in Chemistry or Temperature: Fe; Multi-dose Toxicity: Inhalation-Hamster TCLo • 3 mg/m³ 6 Hour(s) 78 Week(s)-Intermittent; Lungs, Thorax, or Respiration: Fibrosis (interstitial); Lungs, Thorax, or Respiration: Changes in lung weight; Inhalation-Rat TCLo • 6.2 mg/m³ 6 Hour(s) 6 Week(s)-Intermittent; Lungs, Thorax, or Respiration: Other changes; Blood: Changes in spleen; Immunological Including Allergic: Increase in cellular immune response; Inhalation-Rat TCLo • 80 mg/m³ 26 Week(s)- Intermittent; Lungs, Thorax, or Respiration: Fibrosis, focal (pneumoconiosis); Blood: Changes in spleen; Immunological Including Allergic: Decrease in cellular immune response; Tumorigen / Carcinogen: Inhalation-Rat TCLo • 50 mg/m³ 6 Hour(s) 71 Week(s)-Intermittent; Tumorigenic: Carcinogenic by RTECS criteria; Liver: Tumors				

GHS Properties	Classification
Acute toxicity	EU/CLP: Data lacking
Skin corrosion/Irritation	EU/CLP: Data lacking
Serious eye damage/Irritation	EU/CLP: Data lacking
Skin sensitization	EU/CLP: Data lacking
Respiratory sensitization	EU/CLP: Data lacking
Aspiration Hazard	EU/CLP: Data lacking
Carcinogenicity	EU/CLP: Data lacking
Germ Cell Mutagenicity	EU/CLP: Data lacking
Toxicity for Reproduction	EU/CLP: Data lacking
STOT-RE	EU/CLP: Data lacking
STOT-SE	EU/CLP: Data lacking

Potential Health Effects

Inhalation

Exposure to dust may cause irritation. Acute

(Immediate)

Inhalation of respirable dusts containing crystalline silica may cause lung injury or disease Chronic

(Delayed) including silicosis and/or cancer.

Skin

Acute May cause abrasions.

(Immediate)

No data available. Chronic

(Delayed)

Eye

Acute Exposure to dust may cause irritation.

(Immediate)

No data available. Chronic

(Delayed)

Ingestion

Acute No known effects, however ingestion not recommended.

(Immediate)

No data available. Chronic

(Delayed)

Carcinogenic

May cause cancer. This product contains crystalline silica as cristobalite and/or quartz. **Effects** 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.

Carcinogenic Effects			
	CAS	IARC	NTP
Quartz	14808-60-7	Group 1-Carcinogenic	Known Human Carcinogen

Key to abbreviations

LD = Lethal Dose TC = Toxic Concentration

12 – Ecological information

Toxicity: Material data lacking.

Persistence and degradability: Material data lacking. **Bioaccumulative potential:** Material data lacking.

Mobility in Soil: Material data lacking.

Results of PBT and vPvB assessmentNo PBT and vPvB assessment has been conducted.

Other adverse effects No studies have been found.

13 – Disposal Considerations

Waste treatment methods

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.

14 – Transport information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

Special precautions for user None specified.

Transport in bulk according to

Annex II of MARPOL 73/78 and the IBC Code Data lacking.

15 – Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications Chronic

Inventory				
Component	CAS	EU EINECS	EU ELNICS	
Almandine-Ferric Aluminum Silicate	1302-62-1	No	No	
Feldspars	68476-25-5	Yes	No	
Hornblende	12178-42-6	No	No	
Iron	12178-42-6	Yes	No	
Quartz	7439-89-6	Yes	No	

Europe

Environment

EU - Air Pollution (2001/379/EC) - Heavy Metal Pollutants		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Substances Depleting the Ozone layer (1005/2009) - Annex I Substances		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed

•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Plant Protection Products (1107/2009/EC) - Active Substances		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
/ littlatate 1 offic / liaminatif cincate	1002 02 1	Only uses as repellent may be
		authorized (sand; <=0.1% of
		particles of crystalline Silica
		with diameter <50 μm);
•Quartz	14808-60-7	Conditions of use shall
*Qualiz	14000-00-7	include, where appropriate,
		risk mitigation measures
		(sand; <=0.1% of particles of
		crystalline Silica with diameter
•Hornblende	10170 40 6	<50 μm) Not Listed
EU - Industrial Emissions (2010/75/EU) - Integrated Pollution Prevention and Cor	12178-42-6	
• ron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate		Not Listed
	1302-62-1	
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Seveso III Directive (2012/18/EU) - Qualifying Quantities of Dangerous Subs		
•Iron	7439-89-6 68476-25-5	Not Listed Not Listed
•Feldspars		
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Seveso III Directive (2012/18/EU) - Qualifying Quantities of Dangerous Subs	_	
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Other		
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling		
•Iron	7439-89-6	
•Feldspars	68476-25-	
Almandite-Ferric Aluminum Silicate	1302-62-1	
•Quartz	14808-60-	7 Not Listed
•Hornblende	12178-42-	6 Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparation		
•Iron	7439-89-6	
•Feldspars	68476-25-	5 Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-	7 Not Listed
•Hornblende	12178-42-	6 Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases		
•Iron	7439-89-6	
•Feldspars	68476-25-	
Almandite-Ferric Aluminum Silicate	1302-62-1	
•Quartz	14808-60-	7 Not Listed
•Hornblende	12178-42-	
EU - Endocrine Disrupters (COM (2001)262) - List of Evaluated Substances and the	-	
•Iron	7439-89-6	
•Feldspars		
	68476-25-	
Almandite-Ferric Aluminum Silicate	68476-25- 1302-62-1	

•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Export and Import Restrictions (649/2012) - Chemicals and Articles Subject to Ex	kport Ban	
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Export and Import Restrictions (649/2012) - Chemicals Qualifying for PIC Notifical	ation	
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Export and Import Restrictions (649/2012) - Chemicals Subject to the PIC Proced	lure under the	Rotterdam Convention
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Export and Import Restrictions (649/2012) - Chemicals Subject to Export Notifica	ation Procedu	re
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Food Additives (1333/2008/EC) - Annex III - Carriers in Food Additives		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2011/65)		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredien		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and A	romatic Mater	ials
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Narcotics (273/2004) - Drug Precursors - Annex I - Scheduled Substances		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Narcotics (273/2004) - Drug Precursors - Annex II - Threshold Quantities		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - No-Longer Polymers List (67/548/EEC)		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandite-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Water Framework Directive (2000/60/EC) - List of Priority Substances - Annex X		
•Iron	7439-89-6	Not Listed

•Feldspars	68476-25-5 Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1 Not Listed
•Quartz	14808-60-7 Not Listed
•Hornblende	12178-42-6 Not Listed
EU - REACH (1907/2006) - Article 59(1) - Candidate List of S	ubstances for Eventual Inclusion in Annex XIV
•Iron	7439-89-6 Not Listed
•Feldspars	68476-25-5 Not Listed
Almandite-Ferric Aluminum Silicate	1302-62-1 Not Listed
•Quartz	14808-60-7 Not Listed
•Hornblende	12178-42-6 Not Listed

Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

16 – Other Information

Relevant Phrases (code & full text)

H335 - May cause respiratory irritation

H302 - Harmful if swallowed

H372 - Causes damage to organs through prolonged or repeated exposure.

H373 - May cause damage to organs through prolonged or repeated exposure.

Disclaimer/Statement of Liability

The information in this MSDS was obtained from sources that are believed to be reliable; however, the information is provided without any representation or warranty, express or implied, regarding its accuracy or correctness. The conditions or methods of handling, storage, use, and disposal of this product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of, or in any way connected with, the handling, storage, use or disposal of this product.

Key to abbreviations

NDA = No Data Available