



MSDS - MATERIAL SAFETY DATASHEET

Made in accordance with art.32 of EC regulation n.1907/2006 (REACH) &  
Reg. EU/830/2015

PRIME GARNET Ed. n. 3 dated

16/09/2022

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING	
1.1 Product Identification	
Product name:	PRIME GARNET
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Use of substance/mixture:	Mineral used in abrasives sector, industrial and civil sandblasting; manufacturing of abrasive papers and medias, manufacturing of high performance cements and masonry products, high performance filters for fluids, waterjet cutting; realization of syntetic sport fields.
1.3 Details of the supplier of the technical datasheet	
Supplier:	IGM SRL UNIPERSONALE  Via Provinciale 101 Ragazzola 43010 Roccabianca (PR) tel.+39 0521 374048 fax+39 0521 374673 E mail: info@igminerals.it
1.4 Emergency telephone number	
Emergency telephone (working hours)	+39 0521 374048
SECTION 2 HAZARDS IDENTIFICATION	
2.1 Classification of the substance or mixture	
Classification of the mixture under EC Directive 1999/45/EC and EC Regulation N.1272/2008 (CLP) classified as non hazardous	



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2.2 Label elements											
CE DIRECTIVE 1999/45:	HAZARDS	SYMBOLS	-								
		RISK STATEMENTS (R PHRASES)	-								
		PRECAUTIONARY STATEMENTS (S PHRASES)	-								
CE REGULATION N.	HAZARDS	PICTOGRAMS	- 1272/2008 (CLP)								
		WARNING:	-								
		HAZARD STATEMENTS (H PHRASES)	-								
		PRECAUTIONARY STATEMENTS (P PHRASES)	-								
2.3 Other Hazards (not determinant for the classification)											
<p>The product itself does not represent any intrinsic hazard for human health, yet powder inhalation may cause cough and irritation of the nose and throat ; and any accumulation in the airways can lead over time chronic bronchitis and pneumoconiosis.</p>											
SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS											
<p>Premium Garnet Supergarnet is a natural mixture of Almandite (neosilicate with chemical formula <math>Fe_3Al_2(SiO_4)_3</math>) and other minerals presents in traces.</p>											
MINERALOGICAL COMPOSITION:											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%; text-align: center; padding: 5px;">NAME</th> <th style="text-align: center; padding: 5px;">% CONCENTRATION (p/p)</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Almandite</td> <td style="text-align: center; padding: 5px;">99</td> </tr> <tr> <td style="padding: 5px;">Ilmenite</td> <td style="text-align: center; padding: 5px;">&lt;1</td> </tr> <tr> <td style="padding: 5px;">Other Minerals</td> <td style="text-align: center; padding: 5px;">&lt;0,5</td> </tr> </tbody> </table>				NAME	% CONCENTRATION (p/p)	Almandite	99	Ilmenite	<1	Other Minerals	<0,5
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Almandite	99										
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### CHEMICAL COMPOSITION EXPRESSED AS OXIDES%:

EC NAME	EC NUMBER	CAS NUMBER	% CONCENTRATION (p/p)
SILICON OXIDE (SiO <sub>2</sub> )	231-545-4	7631-86-9	35
of which:			
Crystalline Silica (Quarz)	238-878-4	14808-60-7	< 0.07*
Crystalline Silica (Quarz) - breathable fraction	238-878-4	14808-60-7	< 0.1**
IRON OXIDE (FeO)	215-721-8	1345-25-1	33
ALUMINIUM OXIDE (Al <sub>2</sub> O <sub>3</sub> )	215-691-6	1344-28-1	23
MAGNESIUM OXIDE (MgO)	215-171-9	1309-48-4	7
CALCIUM OXIDE (CaO)	215-138-9	1305-78-8	1
MANGANESE OXIDE (MnO)	215-695-8	1344-43-0	1
* determined by X-ray diffractometry ; Detection limit of Quartz : 0.07%			
** determined by X-ray diffraction - analysis based on Method SweRFcs IMA 2012 ;			
Detection limit of Crystalline silica - breathable fraction : 0.1 %			

### SECTION 4 FIRST AID MEASURES

#### 4.1 Description of first aid measures

EYE CONTACT:	Bathe the eye with abundant running water. Call for medical assistance in case of adverse symptoms.
SKIN CONTACT:	Wash with water the affected area.
INHALATION:	In case of inhalation of relevant quantities of product, move the person to open air in a well ventilated area. Call for medical assistance in case of adverse symptoms.
INGESTION:	Given the expected use, the product ingestion is an unlikely event; if anyhow ingestion occurs rinse the mouth and drink water. Call for medical assistance in case of adverse symptoms.

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



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Dust inhalation can cause coughing and irritation of the nose and throat ; any accumulation in the airways can cause over time chronic bronchitis and pneumoconiosis .  
Direct contact of dust with eyes can cause reddening and tearing phenomena .  
Prolonged and repeated skin contact can cause reddening and dryness phenomena .

**SECTION 5  
FIRE-FIGHTING MEASURES**

**5.1 Extinguishing Media**

The product is non-combustible or combustive . Use fire extinguishing methods suitable to the materials involved and affected by the fire .

**SECTION 6 ACCIDENTAL RELEASE  
MEASURES**

In case of accidental release, collect the product with suitable mechanical means avoiding the dispersion of dust ; avoid dry sweeping ; wash the area with water . Recycle and / or recover if possible . Waste disposal must be in accordance with the Community / national / local regulations.

**SECTION 7 HANDLING AND  
STORAGE**

**7.1 Precautions for safe handling**

Handle the product taking preventive measures and protection keen to minimize exposure to dust ( eg . adopt working techniques that limit the dispersion ; prepare adequate intake and collection systems , use of personal protective equipment , provide good conditions of industrial hygiene ) .

**7.2 Conditions for safe storage, including any possible incompatibilities**

It is advisable to keep the product in places protected from drafts and humidity , at a temperature between the ambient and 50 ° C .

**SECTION 8  
EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**



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<p>Occupational exposure limits for inert dusts :</p> <p>TLV - TWA ( ACGIH ) : 3 mg / m3 for respirable particles</p> <p>TLV - TWA ( ACGIH ) : 10 mg / m3 for inhalable particles</p> <p>The measurement of the substances in the working environment must be done with standardized methods ( eg . UNI EN 689 : 1997 Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy ; EN 482 : 2006 Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents ) or , in their absence , with appropriate methods.</p>	
8.2 Exposure controls	
<p>Appropriate technical measures to control exposure, to be taken in the workplace , should be selected and applied as a result of the risk assessment carried out by the employer , in relation to its specific working conditions ( in accordance with the international safety regulations carried out nationally and internationally, the employer shall take care of verifying the accordance to national and international regulations ). If the results of this assessment show that the general and collective prevention measures in use are not sufficient to reduce the risk , and whether it would prove impossible by any other means to prevent exposure to the mixture, it shall be mandatory to adopt adequate personal protective equipment , complying with relevant technical standards UNI / EN.</p>	
8.2.1 Suitable technical controls	
<p>Minimize the dispersion of dust in the air ; use processes ' containment structures , ensure good workplace ventilation ; provide adequate air/dust suction systems.</p>	
8.2.2 Personal protection measures, personal protection devices	
<p>EYES PROTECTION:</p>	<p>Wear eye protection (according to UNI EN 166 ) , if prevention measures are not sufficient to reduce the risk of eye contact .</p>
<p>HANDS AND BODY PROTECTION:</p>	<p>In the event of prolonged or repeated contact with the skin , it is recommended to wear protective gloves made of rubber or other material suitable for the specific working process ( according to UNI EN 374 ) , and appropriate work clothes .</p>
<p>RESPIRATORY PROTECTION:</p>	<p>If the formation of dust can not be adequately managed with suitable ventilation systems , it is necessary to wear respiratory protective equipment , such as filtering full face masks , half-face filtering masks or self contained breathing apparatus ( according to UNI EN 149 , 140 or 136 ) .</p>
<p>SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES</p>	



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Physical State:	Solid, in granules
Colour:	intense red, brownish red
Odour:	Odourless
Solubility in water:	Non soluble
Solubility in strong acids:	< 1%
Specific weight:	4,1 g/cm <sup>3</sup>
Melting point:	1315 °C
Grain Size:	from #8/12 to 350 mesh (US standard grade)
Hardness:	7,5-8,0 (Mohs Scale)
Electrical Conductivity:	< 250 μS/cm
Flammability	not inflammable
Oxidising properties	Non oxidising

### SECTION 10 STABILITY/REACTIVITY

#### 10.1 Reactivity

The product is stable and inert.

#### 10.2 Chemical stability

The product is stable under normal temperature and pressure conditions.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport and storage conditions

#### 10.4 Conditions to avoid

Not known



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10.5 Incompatible materials
Not known
10.6 Hazardous decomposition products
It is not expected the formation of hazardous decomposition products .
<b>SECTION 11 TOXICOLOGICAL INFORMATION</b>
Premium Garnet Supergarnet is a natural mixture of almandine (nesosilicate mineral with formula $Fe_3Al_2(SiO_4)_3$ ) . The product does not pose a danger inherent to human health , but the inhalation of dust can cause coughing and irritation of the nose and throat ; any accumulation in the airways can lead over time chronic bronchitis and pneumoconiosis . Direct contact of dust with eyes can cause reddening and tearing phenomena . Prolonged and repeated skin contact , can cause phenomena of reddening and dryness .
<b>SECTION 12 ECOLOGICAL INFORMATION</b>
The mixture does not present toxic effects to the environment . The product is of an inorganic nature , is not subject to phenomena of biological degradability and bioaccumulation .
<b>SECTION 13 DISPOSAL CONSIDERATIONS</b>
Recycle if possible . Do not release into the environment . Waste disposal must be in accordance with all applicable regulations.
<b>SECTION 14 TRANSPORT INFORMATION</b>
This product does not require classification for transport.
<b>SECTION 15 REGULATORY INFORMATION</b>



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15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No specific regulation/legislation for the product
SECTION 16 OTHER INFORMATIONS
EDITION N.02 DATED 16/10/2015
<b>BIBLIOGRAPHIC SOURCES:</b> Position Paper (January 2014) Classification and labelling of crystalline silica (fine fraction) – IMA Europe <a href="http://www.crystallinesilica.eu">http://www.crystallinesilica.eu</a>
<b>ABBREVIATIONS AND ACRONYMS:</b> - ACGIH : American Conference of Governmental Industrial Hygienists - IMA : European Industrial Minerals Association - SweRFcs : Size Weighted Respirable Fraction of Crystalline Silica - TLV - TWA : TLV - TWA ( Threshold Limit Value - 8 - hour Time Weighted Averages ) : pondered average concentration over time on a conventional working day of eight hours and 40 hours a week , with this working timeshift it is believed that nearly all workers may be repeatedly exposed without adverse effect .

### NOTICE TO USERS

This document has the purpose to provide a guide for appropriate handling of this product . The product should not be used for purposes other than those listed , except in case they are received adequate information on how to handle . Any use of the mixture that does not meet the guidelines outlined in this document or the use of the product in combination with any other product or any other process , will be at the sole responsibility of the user . The information in the document should not be considered a representation or warranty of merchantability, fitness for a particular purpose or quality .