

## Voluntary product information for blasting abrasives based on the format of the safety data sheet of the REACH Regulation (EC) No. 1907/2006

### 1. Identification of the product and the company/undertaking

**1.1 Product identifier**  
Garnet

**1.2 Relevant identified uses of the product and uses advised against**  
No information available  
**Uses of the product**  
Mineral blasting abrasive for industrial use

**1.3 Details of the supplier of the voluntary product information**  
**Manufacturer / supplier**  
Kuhmichel Abrasiv GmbH  
Am Rosenbaum 22  
40882 Ratingen, Deutschland  
**Competent person**  
Kerstin Knein  
**Phone / E-Mail**  
+49 2102 93979-27 / [kerstin.knein@kuhmichel.com](mailto:kerstin.knein@kuhmichel.com)

**1.4 Emergency phone number**  
Phone +49 2102 93979-99

### 2. Hazards identification

**2.1 Classification of the substance or mixture**  
Not applicable

**2.2 Label elements**  
Does not require labelling under the CLP Regulation (EC) No. 1272/2008. But please take note of this product information. No risk of silicosis during application.  
**Safety instructions**  
Possible dust exposure due to fine dust particles.

**2.3 Other hazards**  
Not known

### 3. Composition/information on ingredients

#### 3.2 Mixture

Chemical characterisation	EINECS	CAS No.	(1) REACH Registration No. (2) CLP Notification No.	Ingredients (Mean values)	Classification according to CLP Regulation (EC) No. 1272/2008	
					Hazard classes / hazard categories	Hazard statements
Silicon dioxide* (SiO <sub>2</sub> )	238-878-4	14808-60-7	Natural product, therefore not subject to REACH Regulation	35.00%	-/-	-/-
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	215-168-2	1309-37-1		33.00%	-/-	-/-
Alumina (Al <sub>2</sub> O <sub>3</sub> )	215-691-6	1344-28-1		23.00%	-/-	-/-
Magnesium oxide (MgO)	215-171-9	1309-48-4		7.00%	-/-	-/-
Calcium oxide (CaO)	215-138-9	1305-78-8		1.00%	-/-	-/-
Manganese oxide (MnO)	215-266-5	1317-35-7		1.00%	-/-	-/-

\* not silicogenic resp. crystalline

Substances listed on the so-called 'Candidate List of Substances of Very High Concern (SVHC) for authorisation' of the European Chemicals Agency (ECHA) are not intentional ingredients of this product. It is therefore not to be expected that those substances are present in quantities of > 0.1% in the product.

**Hazardous substances**  
No dangerous ingredients

**Substances with prescribed EC exposure limits**  
Does not contain substances with EC exposure limits.

## 4. First aid measures

Please also take note of sections 8 and 16 of this product information.

### 4.1 Description of first aid measures

#### General information

Consult a doctor in case of health disorders.

#### After inhalation

Provide the affected person with fresh air. Consult a doctor in case of irritation of the respiratory tract.

#### After eye contact

Remove contact lenses and rinse the eyes with open eyelids for 10 minutes under running water. If necessary, consult an ophthalmologist.

#### After skin contact

Wash with water and rinse.

#### After swallowing

Rinse mouth and drink plenty of water. Do not induce vomiting. If you feel unwell, seek medical advice.

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

Not known

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically

## 5. Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Product does not burn. Match extinguishing measures to ambient situation.

#### Unsuitable extinguishing media

Not known

### 5.2 Special hazards arising from the product

Not known

### 5.3 Advice for fire fighters

Match the firefighting measures to the environmental conditions.

#### Additional information

Not known

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation

### 6.2 Environmental protection measures

Not known

### 6.3 Methods and materials for containment and cleaning up

Pick up mechanically and dispose of properly.

### 6.4 Reference to other sections

Refer to protective measures in sections 7 and 8.

#### Additional information

Not known

## 7. Handling and storage

### 7.1 Precautions for safe handling

For safety reasons, it is recommended to use a protective sieve during filling.

#### Information on safe handling

Avoid dust formation

#### Information on fire and explosion protection

Do not treat or store product near open flames, heat or ignition sources.

#### Additional information

Not known

## 7.2 Conditions for safe storage, including any incompatibilities

### Information on storage conditions

Always store product in dry conditions.

### Requirements for storage rooms and containers

No special requirements needed.

### Storage class VCI

LGK 13 (non-combustible solids)

## 7.3 Specific end uses

Mineral blasting abrasive for industrial use

# 8. Exposure controls/personal protection

## 8.1 Control parameters

### Occupational exposure limit values in the workplace and/or biological limit values in Germany

Dust limits	CAS	MAK value mg/m <sup>3</sup>		Spzbg
		inhalable fraction (E) <sup>1</sup> mg/m <sup>3</sup>	respirable fraction (A) <sup>1</sup> mg/m <sup>3</sup>	
General dust limit	-	4	0,3	-

<sup>1</sup> If no value is given, the general dust limit value with exceedance factor 2 applies.  
<sup>2</sup> Specific dust limit multiplied by material density

### Community exposure limits

Country specific. Please inquire in individual cases.

## 8.2 Exposure controls

### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over the use of personal protective equipment. Provide adequate ventilation. This can be achieved by local suction or general air extraction.

Garnet is not a hazardous substance, thus only the general dust limit value applies.

Suitable assessment methods to verify the effectiveness of the protective measures taken include metrological and non-metrological determination methods as described in the Technical Rules for Hazardous Substances (TRGS) 402 and BS EN 14042.

### Personal protective equipment

The use of personal protective equipment is dependent on the concentrations and quantity of hazardous substances in their execution in specific workplaces.

### Respiratory protection

Normally, no personal respiratory protective equipment is necessary. In case of insufficient ventilation or exceeded workplace limits, a protective breathing mask should be worn (FFP filtering half mask depending on the existing concentration).

### Hand protection

Glove material: Leather

### Eye protection

Tight-sealing protective eyewear (dust-protection goggles) like NIOSH (US) or EN 166 (EC).

### Body protection

With normal use, no body protection by half or full-body coverall and boots is required.

### Information on industrial hygiene

Minimum standards for protective measures when handling working materials are listed in TRGS 500.

Do not eat, drink, smoke or take drugs while using this product.

Avoid contact with skin, eyes and clothing.

Remove soiled or soaked clothing immediately.

Wash hands before breaks and at end of work.

Protect skin by using skin creams.

### Environmental protection measures

See sections 6 and 7; no further action is required.



## 9. Physical and chemical characteristics

### 9.1 Information on basic physical and chemical properties

Physical state	solid
Colour	red-brown
Odour	odourless
Melting point / freezing point	approx. 1 300 °C / not usefully applicable
Boiling point or initial boiling point and boiling range	not usefully applicable
Flammability	not determined as product is not flammable
Lower and upper explosion limit	not known. The product itself is not explosive; however, formation of explosive air/dust mixtures is possible.
Flash point	not determined as product is not flammable
Auto-ignition temperature	not determined as product is not flammable
Decomposition temperature	not determined, as product does not decompose
pH	not usefully applicable
Kinematic viscosity	not usefully applicable
Solubility	insoluble in water
Partition coefficient n-octanol/water (log value)	not usefully applicable
Vapour pressure	not relevant
Density and/or relative density	approx. 3.5 - 4.3 g/cm <sup>3</sup>
Relative vapour density	not relevant
Particle characteristics	not relevant

### 9.2 Other information

None

## 10. Stability and reactivity

### 10.1 Reactivity

Garnet is non-reactive and do not change with proper handling and storage.

### 10.2 Chemical stability

Garnet is chemically stable and do not change with proper handling and storage.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known.

### 10.4 Conditions to avoid

No decomposition if used according to specifications.

### 10.5 Incompatible materials

No hazardous reactions known.

### 10.6 Hazardous decomposition products

No known hazardous decomposition products.

## 11. Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Does not require labelling under the CLP Regulation (EC) No. 1272/2008.

According to current DGUV 500 investigation report the product contains no silicosis-inducing, toxic and carcinogenic components. The indications given in section 8 of this product information must be observed.

#### Acute toxicity

No data on the product available

#### Skin corrosion/irritation

No data on the product available

#### Serious eye damage/irritation

No data on the product available

#### Respiratory or skin sensitisation

No data on the product available

#### Germ cell mutagenicity

No data on the product available

#### Carcinogenicity

No known carcinogenicity of Garnet.

#### Reproductive toxicity

No data on the product available



**STOT-single exposure**

No data on the product available

**STOT-repeated exposure**

No data on the product available

**Aspiration hazard**

No data on the product available

**11.2 Information on other hazards**

None

## 12. Ecological information

**12.1 Toxicity**

No known effects

**Ecotoxicity**

For Garnet no environmental problems are to be expected when handled and used properly.

**Fish toxicity**

Harmful effects for aquatic organisms are not expected.

**Aquatic invertebrates**

Harmful effects for aquatic organisms are not expected.

**Water plants**

Harmful effects for aquatic organisms are not expected.

**12.2 Persistence and degradability**

Based on current experience, this product is inert.

**12.3 Bioaccumulative potential**

No data available. Accumulation in organic material is rather unlikely.

**12.4 Mobility in soil**

Potential not known

**12.5 Results of PBT and vPvB assessment**

Not relevant. The substances in this product do not meet the criteria for classification as PBT or vPvB.

**12.6 Endocrine disrupting properties**

The product does not contain substances in quantities of 0.1% or more that have endocrine disrupting properties according to REACH Article 57 (f).

**12.7 Other adverse effects**

Not known

## 13. Disposal considerations

**13.1 Waste treatment methods**

**Product**

Garnet. If recycling is not possible, waste must be disposed of in compliance with national and local regulations. Confirm the exact waste code with the disposer.

**Waste Code according to European Waste Catalogue (EWC)**

12 01 17 waste blasting material other than those mentioned in 12 01 16

**Recommendation**

Contact Kuhmichel Abrasiv GmbH for the recycling of used Garnet.

**13.2 Packaging**

National and local regulations must be followed.

**Contaminated packaging**

Packaging with Garnet residues can be recycled.

**Cleaned packaging**

Packaging can be reused after being cleaned or recycled.



## 14. Transport information

- 14.1 UN number or ID number**  
No dangerous goods
- 14.2 UN proper shipping name**  
**ADR / RID**  
No dangerous goods  
**IMDG-Code / ICAO-TI / IATA-DGR**  
No dangerous goods
- 14.3 Transport hazard class(es)**  
**ADR / RID / IMDG-Code / GGVSee / ICAO-TI / IATA-DGR**  
No dangerous goods
- 14.4 Packing group**  
No dangerous goods
- 14.5 Environmental hazards**  
**Label environmentally hazardous substances**  
ADR / RID / IMDG-Code: no  
ICAO-TI / IATA-DGR: no
- 14.6 Special precautions for user**  
see Section 6 to 8
- 14.7 Transport in bulk according to IMO instruments**  
Not applicable

## 15. Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the product

#### EU regulations

Garnet is not subject to the Regulation 722/2012/EU (ADI-Free).

#### National regulations

##### Water hazard class

Not hazardous to water; classification according to AwSV.

##### Technical instruction on air quality (TA-Luft)

Substances not mentioned by name.

##### Hazardous Incident Ordinance (12. BImSchV [German Federal Immission Control Regulation])

Substances not mentioned by name.

##### Solvents Ordinance (31. BImSchV [German Federal Immission Control Regulation])

Substances not mentioned by name.

##### Chemicals Prohibition Ordinance

Substances not mentioned by name.

##### Relevant Technical Rules for Hazardous Substances

Contains no hazardous substances.

##### Employment Restrictions

Not known

#### Miscellaneous

Garnet is not subject to the VOC Regulation.

#### International regulations

All Garnet ingredients are listed with TSCA, AICS, DSL/NDL, KECL, ENCS, PICCS, IECS, NZIoC and TCSCA.

### 15.2 Chemical safety assessment

Not determined

## 16. Other information

#### Further applicable EC directives

Not known

#### Restrictions on use recommended by the manufacturer

For industrial application only

**Other information**

The product information in this documentation is correct to the best of our knowledge at the time of printing. The information is intended to provide you with advice on the safe handling of the product mentioned in this product information for storage, processing, transport and disposal. The information cannot be applied to other products. If the product mentioned in this documentation is in any way tampered with i.e. mixed with other materials, processed or undergoes processing, the information as supplied in this document no longer applies to the new product unless stated otherwise.

**Changes since the last version**

2023-01-27 Adjustments according to Regulation (EC) 2020/878, Revision of MAK values

**Literature and data sources**
**Regulations**

REACH Regulation (EC) No. 1907/2006  
 CLP Regulation (EC) No. 1272/2008  
 Hazardous Substances Ordinance (GefStoffV)  
 Commission Decision 2000/532/EC (AVV)  
 Transport Regulations according to ADR, RID and IATA  
 TRGS 900  
 VOC Regulation (ChemVOCFarbV)

**Hazard statements, referred to in section 2 and 3 according to Regulation (EC) No. 1272/2008:**

None

**The above information is based on the present state of knowledge; however, this shall not constitute a guarantee of product properties and establishes no contractual legal rights. Existing laws and regulations must be strictly followed by the recipient or user of the blasting medium on their own responsibility.**

**Legend**

ADR	European agreement concerning the international carriage of dangerous goods by road
AVV/EWC	European Waste Catalogue
AwSV	Administrative Regulation on Substances Hazardous to Water
BImSchV	Regulation on the Implementation of the (German) Federal Immission Control Ordinance
CAS	Chemical Abstracts Service
DGUV	German statutory accident insurance
EC	European Community
EN	European Standard
GGVSee	Dangerous Goods Ordinance Sea
IATA-DGR	International Air Transport Association-Dangerous Goods Regulations
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization-Technical Instructions
IMDG-Code	International Maritime Code for Dangerous Goods
IMO	International Maritime Organization
MAK	Maximum workplace concentration
PBT	persistent, bioaccumulative, toxic
RID	Regulations concerning the International Carriage of Dangerous Goods
Spzbg	Peak Limitation Category (Exceedance Factor)
TRGS	Technical Rules for Hazardous Substances
UN	United Nations
US	United States
VOC	Volatile Organic Compounds (VOCs)
vPvB	very persistent and very bioaccumulative
TSCA	Toxic Substances Control Act in USA
AICS	Australian Inventory of Chemical Substances
DSL/NDSL	Canada Domestic Substances List / Non-domestic Substances List
KECL	Korea Existing Chemicals List
ENCS	Japanese Existing and New Chemical Substances
PICCS	Philippine Inventory of Chemicals and Chemical Substances
IECSC	Existing chemical inventory in China
NZIoC	New Zealand Inventory of Chemicals
TCSCA	Toxic Chemical Substance Control Act in Taiwan
KKDIK	Turkish Regulation on Chemicals Registration, Evaluation, Authorisation and Restriction