

SCHEMA DI SICUREZZA

GRANOTERM GRIGIO

Edition 2 of 01/07/03
Revision 0

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1. PRODUCT AND MANUFACTURING COMPANY IDENTIFICATION

Brand name: GRANOTERM GRIGIO/GREY

Use: investment for solderings

Supplier: INDUSTRIA ZINGARDI Srl – Via Mazzini, 161 – 15067 NOVI LIGURE (AL) ITALY –
Tel: ++39 0143 2148/73468 – Fax: ++39 0143 71883 – e-mail: zingardi@zingardi.it

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances contained in the preparation, considered dangerous according to the EEC Directive 67/548 and following adjustments:

none

The preparation contains:

<u>COMPONENTS</u>	<u>RAW FORMULA</u>	<u>CAS</u>	<u>QUANTITY</u>
Hemi-hydrated calcium sulphate	$\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$	10034-76-1	< 35 %
Quartz	SiO_2	14808-60-7	> 25 %
Cristobalite	SiO_2	14464-48-1	> 25 %
Natural graphite		7782-42-5	< 0,2 %

3. IDENTIFICATION OF DANGERS

The compound is not classified as dangerous according to the Directive EEC 67/548 and following adjustments; nevertheless it contains quartz and cristobalite, dangerous substances if inhaled, for the possible development of silicosis and lung cancer.

4. FIRST AID

Contact with eyes: water eyes with a lot of water holding the eyelids open. It is better that the holders of contact lens undergo to a medical control.

Contact with skin: wash a lot with warm water

Inhalation: assure the entrance of fresh air. Consult a doctor.

Ingestion: rinse the mouth and drink a lot of water

5. FIRE-PREVENTION METHODS

Suitable means of extinction: the material is not inflammable; if the product is involved in a fire, use the means of extinction recommended

Forbidden means of extinction: none

Risks for exposure: inhalation of quartz and cristobalite powders is dangerous (see point 11)

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6. MEASURES FOR CASUAL DISPERSION

- 6.1 **Personal precautions:** avoid the formation of dust. In case of discharge of important quantities of powder, wear suitable personal protective clothes, including anti-dust mask and in case aqualung.
- 6.2 **Environmental precautions:** control the formation of dust sprinkling with nebulized water
- 6.3 **Improvement methods:** collect mechanically into suitable containers. Remove the rests with jets of water.

7. MANIPULATION AND STORAGE

- 7.1 **Manipulation:** in case of formation of dust utilize local or general ventilation system
- 7.2 **Storage:** keep in a dry and cool place

8. PERSONAL PROTECTION / EXPOSURE CONTROL

- 8.1 **Limit values for exposure** adopted from American Conference of Industrial Hygienists (ACGIH):

Quartz: 0,05 mg/m³
Cristobalite: 0,05 mg/m³

8.2.1 Control of professional exposure:

8.2.1.1 **Respiratory protection:** anti-dust mask code 3M 8835 M/L

8.2.1.2 **Hand protection:** gloves

8.2.1.3 **Eyes protection:** safety glasses

8.2.1.4 **Skin protection:** not necessary, in case apron

8.2.2 **Environmental exposure control:** remember point 6

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: grey coloured powder

Odour: odourless

pH : n.d.

Melting point: about 1700 °C

Inflammability: it does not catch fire, it does not burn down

Explosive and combusive properties : not explosive, not combusive

Specific weight: 1,20

Solubility in water: not soluble

10. STABILITY AND REACTIVITY

Stability: the compound is stable and it does not decompose if used in the normal conditions of use and storage

Conditions to avoid: none

Substances to avoid: none

Dangerous reactions: none

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11. TOXICOLOGICAL INFORMATION

We can sum risks linked to the exposure at the compound as follows:

11.1 **Penetration way:** inhalation, ingestion, contact with skin and eyes

11.2 **Inhalation:** exposure at quartz and cristobalite powders can cause silicosis, lung cancer and lung tuberculosis

11.3 **Ingestion:** it does not cause considerable risks. LD₅₀ on rat > 15.000 mg/kg

11.4 **Contact with skin:** unknown irritant effects

11.5 **Contact with eyes:** moderately irritant

12. ECOLOGICAL INFORMATION

The product does not present relevant risks for waters: LC₅₀ carp > 10.000 mg/l/72h

13. WASTE DISPOSAL

The product is classifiable as special waste not dangerous, it can be eliminated in controlled dump according to the current law (D. Lgs 22/97 and following adjustments). Sometimes, for decision of single town council, it can be disposed with domestic waste.

14. INFORMATION ON TRANSPORT

Transport not regulated.

15. REGULATIONS

Labelling of preparation in application of D. Lgs 3 February 1997, n° 52 and Directive 1999/45/CE regarding classification, packing and labelling of dangerous compounds:

Symbol of danger: not requested

Phrase of risk: not requested

Advices of caution: S22 - not breathe the powders

16. FURTHER INFORMATION

Safety schedule was written in conformity to Directive 91/155/EEC and following adjustments and D.M. 4/04/97 and 7/09/2002. The reported information are based on our present knowledge at the moment of the consignment, considering safety norms and a correct and pure use.

The supplying firm is not responsible for an improper use of the product and for any risk springing from changes or unknown effects in the technical characteristics of raw materials.