

Safety data card in conformity with the EEC 91/155 DirectiveProduct Line : **Braided packing - GF 4600KS****1. DENOMINATION OF THE PRODUCT AND OF THE COMPANY**

Indications on the product :

Braided compression packing made by G4 GORE yarns, expanded PTFE with encapsulated graphite powder, and aramid yarns

Manufacturer : CARRARA Spa
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2. COMPOSITION/INFORMATION ON THE COMPONENTS

Chemical characterization:

- PTFE polymer and graphite powder, aramid fibres
- free from substances considered dangerous for the health

3. IDENTIFICATION OF THE DANGERS

- The solid PTFE polymer and the graphite have never evidenced risks for the human health and for the environment
- Risks present themselves when the product is brought to temperatures superior to 400°C above which starts the emission of toxic compounds (HF and COF₂) which are not immediately visible but are extremely corrosive and can cause serious burns

4. FIRST AID MEASURES

- further to inhalation of decomposition products, bring the injured person in the open air and keep him calm and request intervention of a doctor
- **Indications for the doctor** : symptoms, for inhalation to decomposition products the following symptoms can occur : temperature, breathing insufficiency, cough, shivers

Interventions in case of contact with the compounds of the thermal decomposition (T > 400°C) :

Contact with the eyes

- rinse immediately with running water for at least 15 minutes until intervention of the doctor
- request prompt intervention of a doctor

Contact with the skin

- wash immediately with water and soap carefully rinsing between the folds of the skin and under the nails
- request prompt intervention of a doctor

Inhalation

- bring the subject in the open air and if possible give oxygen
- if breathlessness occurs effect artificial respiration, preferably mouth to mouth
- request prompt intervention of a doctor and keep under observation for at least 48 hours

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Suitable means for extinction : - Water

- Foam
- Extinguishing powder
- Carbon dioxide

The risks in case of fire are connected to the combustion products which are :

- Carbon monoxide (CO)
- Hydrofluoric acid (HF)
- Carbonyl fluoride
- Tetrafluoroethylene
- Hexafluoropropylene
- Perfluoroisobutylene

Particular protection equipment for the antifire operations :

- it is peremptory, for the extinguishing, rescue and clearing operations in presence of combustion and distillation gases, to use a breathing apparatus for secure protection of the respiratory tract

Other indications :

the fluoropolymers can increase the relative toxicity of the combustion gases

6. MEASURES IN CASE OF ACCIDENTAL LEAKAGE

Cleaning/collecting measures

- collector with mechanical equipment
- dispose in conformity with the Local regulations and laws

7. HANDLING AND WAREHOUSING

Handling

- avoid the high temperatures near or above the decomposition start temperature ($T > 400^{\circ}\text{C}$)

Warehousing

- keep away from ignition sources

8. LIMITATION OF THE EXPOSURE/INDIVIDUAL PROTECTION

Individual protection

- General protection measures : do not breath steams and powders in case they are generated, in such cases **Do not smoke during work**

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Appearance : - Shape : solid braided compact, cerous at touch
- Colour : black
- Odour : odourless

Important data for the safety

Modifications of the physical state : melting point of the crystalline from 320 up to 345°C

- Method : ASTM D 4895
- Flammability point : not applicable
- Ignition temperature: > 500°C
- Inferior explosivity limit : not applicable
- Steam tension : < 5 mm
- Density: 1,6 g/cm³
- Solubility in water : insoluble
- pH value : not applicable
- Viscosity : not applicable

10. STABILITY AND REACTIVITY

- Thermal decomposition: T > 400°C - Method : thermogravimetry
- Dangerous reactions with : strong oxidants, melted alkaline metals and partial reactivity with a few interhalogen compounds
- Dangerous decomposition products : Hydrofluoric acid, Carbonyl fluoride, Tetrafluoropropylene, Hexafluoropropylene and Perfluoroisobutylene

11. INDICATIONS ON THE TOXICOLOGY (Observations)

- As by pluriannual experiments no harmful effects are known if the product is used correctly

12. INDICATIONS FOR THE ECOLOGY (Observations)

- The product is not water-soluble
- The material does not have harmful effects on the environment

13. INDICATIONS FOR THE DISPOSAL

- In respect of the set of rules in force in the matter and after having contacted the person in charge of the disposal and the competent authorities the product can be deposited in a dump or incinerated together with the city rubbish
- The hydrofluoric acid must be eliminated by alkaline washing of the combused gases

14. INDICATIONS ON THE TRANSPORT

Transport by overland

- ADR GOODS NOT DANGEROUS
- RID GOODS NOT DANGEROUS

Water transportation

- ADNR GOODS NOT DANGEROUS

Transport by sea

- IMDG/UN GOODS NOT DANGEROUS

Transport by air

- ICAO/IATA-dgr GOODS NOT DANGEROUS

Shipment by mail

- Allowed

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The product does not comply with either chemical or harmful substances classification, it is not the subject of the directive REACH, RoHS and is not boudbed by the restrictions of the system EU RAPEX. (Bote: the marking of materials is discussed with local authorities)

2. OTHER REGULATION

No special marking is required by EU standard

16. OTHER INFORMATIONS**1. Health aspects**

Safety in use of mineral and Synthetic Fibres, Occupational Safety and Health Series, international Labour Office (ILO).

2. Good working practice

Local regulations may be apply

3. Declaration

This material Safety Sheet contains the information which are necessary for ensuring the safety of work, health and environment protection. The information given herein is the best available on the date of its issue and comply with the local legal regulations. However, it does not constitute a contractual description of suitability and usability of the product for a particular application. This information is furnished as a guide only and upon the condition that the person receiving it shall make tests to determine the accuracy and suitability of these data for his/her own particular way of application.