CARRARA® S.p.A.

Safety data card in conformity with the EEC 91/155 Directive

Product Line : **Braided Packing - KD6605**

1. DENOMINATION OF THE PRODUCT AND OF THE COMPANY

Indications on the product :

The KD6605 braided packing is manufactured with discontinuous aramid fiber yarns and PBI yarns on the corners. Each thread is impregnated with PTFE dispersion and inert lubricant.

Data relevant to the producer : CARRARA

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2. COMPOSITION/INFORMATION ON THE COMPONENTS

Chemical characterization:

- Synthetic aramid fiber, PBI yarns, PTFE impregnant polymer and inert running-in oil
- Free from substances considered dangerous for the health

3. IDENTIFICATION OF THE DANGERS

- The aramid and PBI yarns and the solid PYFE polymers have never evidenced risks for the human health and for the environment
- Risks present themselves for the presence of the PTFE when the product is brought to temperatures superior to 400°C above which starts the emission of toxic compounds (HF and COF_2) 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

5. ANTIFIRE MEASURES

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/dioxide (CO and CO_2)
- Hydrofluoric acid (HF)
- Carbonyl fluoride
- Tetrafluoroethylene - Hexafluoropropylene
- Perfluoroisobutylene
- Hydrocyanic acid (HCN in minimum concentrations)

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

- during running-in the product may release small quantities of steams/fumes due to the thermal decomposition of the finishing products used in percentage fraction
- avoid the temperatures above the decomposition start temperature (T >400°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**

9. PHYSICAL AND CHEMICAL PROPERTIES

Aspect : - Shape : solid braided compact
- Colour : yellow
- 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 : < 5mm / the aramidic fiber cannot be vaporized
- Density: 1,6 g/cm^3
- 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, partial reactivity with a few interhalogen compounds, avoid applications in acid or basic environments with pH above the 3 ÷ 12 field
- Dangerous decomposition products : Carbon monoxide/dioxide, Hydrofluoric acid, Carbonyl fluoride, Tetrafluoropropylene, Hexafluoropropylene, Perfluoroisobutylene and Hydrocyanic acid

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

15. SET OF RULES

EEC 67/548 Directive

- Type of Classification : none

Labelling :

- Classification : not requested
- Danger symbol : not requested
- Risk phrases : not requesed
- Safety phrases : not requested

DPR 303/56 (General rules for the working hygiene) : not mentioned

16. OTHER INFORMATIONS

These informations are based on the actual level of our knowledge and the ones supplied by the manufacturing companies of the components of our products. Their aim is to describe our product under the safety aspect and does not have the intent to guarantee determining specific properties of the product itself.