

Plant: Rich. KLINGER
Dichtungstechnik GmbH & Co KG
Am Kanal 8-10
A-2352 Gumpoldskirchen

Date of Issue: 20.01.2011
Sheet 1 of 6

Safety Information

1. Material/Preparation and Company Name

1.1 Description of the prouduct:

Tradename: **KLINGER®top-chem-2000**

1.2 Application of the product:

Gasket material for the application in flanged joints

1.3 Information on the manufacturer:

Rich.KLINGER Dichtungstechnik GmbH & CO KG
Am Kanal 8-10; A-2352 Gumpoldskirchen
Division giving information:
Research & Development
Telephone: +43 (0)2252-62599-0
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Medical advise: +43 (0)1-4064343

2. Composition/Information on Components

2.2 Chemical Characteristics

Material contents:

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|--|---|--|--|--|--|
| | | | | | |
| | PTFE Polytetrafluoro ethylene Siliconcarbide (SiC) | | | | |

Danger classification not necessary as no dangers are known based on the level of knowledge at the present time.

3. Possible Dangers

Identification of danger: In its form as supplied no hazards known.

4. First Aid Actions

After inhaling: After inhalation of decomposition products, move to fresh air and rest. Seek medical treatment.

After skin contact: Not applicalbe (accordingly see point 6)

After eye contact: Remove small solid particles and rinse with water approx. 10 min.
If provoking continues, a doctor must be consulted.

After swallowing: No measures necessarily.

Note for the doctor: Not applicable

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5. Measures for Firefighting

Suitable extinguishing agent: Water, carbon dioxide, powder extinguishers, foam extinguishers.

KLINGER®top-chem-2000 is non-flammable and also does not support any fire.

Extinguishing agent which is unsuitable for safety reasons: Not known.

Special dangers through the material or the preparation itself, its combustion and decomposition products or resulting gases: Carbon monoxide, Hydrofluorene, organic Fluor connections.

Decomposition products formed at temperatures beyond 330°C can lead to eye and respiration irritations. Breathing of decomposition products can lead to polymer fume fever with the following symptoms: cough, sneeze, headache, fever, chill and sweating.

Special protective equipment: When Firefighting, wear self-contained breathing apparatus. A full chemical protective equipment has to be worn against combustion gases (see above). After a fire with PTFE, neoprene gloves have to be worn when tidying up.

Additional notes: Fluorpolymere could enhance relative toxically effect of arised combustion gases.

6. Measures in Case of Unintentional Release

Precautionary measures related to persons: Avoid dust formation

With thermal (over 330° C) effects: See Point 5 and Point 10.

Environmental protection measures: No dangers known.

Procedure for cleaning: Use of approved vacuum cleaners with fine dust filters.

6.1 Measures in Case of Unintentional exceeding Dust Release

General Note: In case of improper use and use which is not in compliance with stipulations e.g. grinding might cause an exceeding amount of fine dust. In this case proper exhausting and filtering is to apply respectively protective equipment (fine –dust respirator FFP1 acc. to EN149:2001) has to be worn.

After Inhaling: Bring to fresh air

After skin contact: Washing with soap

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In the processing area of products containing PTFE, a general smoking prohibition applies. In addition, no tobacco products may be stored or carried on the body. Through adhering PTFE dust particles, thermal decomposition products, which can lead to symptoms of sickness, can result when igniting the tobacco (see also Point 5).

7. Handling and Storage

7.1 Handling

Notes on safe handling: Measures for the avoidance of strong dust formation.

Notes on protection against fire and explosion: Material is not combustible or flammable.

In case of external effects of fire, see Point 5.

7.2 Storage

Requirements on storage rooms and containers: Dry storage rooms.

Notes on storing together with other products: No restrictions or dangers known.

8. Limits of Exposure and Personal Protective Equipment

8.1 Expositions References

See point 7; no further measures necessarily

8.2 Personal Protective Equipment for processing

Breathing protection: in case of high fine dust concentrations use personal protective equipment (e.g. fine –dust respirator FFP1 acc. to EN 149:2000).
Accordingly see point 6.

Hand protection: Gloves

Body protection: Overall

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9. Physical and Chemical Characteristics

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|---------------------------------|---------------------------------|-------------|---------------|
| 9.1. Appearance | | | |
| Form: firm sheets | Colour: grey | | |
| Odour: odourless | | | |
| 9.2 Safety-related data | | | |
| | Value/Range | Unit | Method |
| Change in state | not known | | |
| Boiling point/Boiling range: | n.a. | | |
| Melting point/Melting range: | n.a. | | |
| Decomposition of polymer: | over 330°C | | |
| Flash point: | not known | | |
| pH-Wert: | n.a. | | |
| Ignitability of solid material: | not known | | |
| Ignition temperature | not known | | |
| Self-igniting solid material: | Not self-igniting | | |
| Fire-promoting properties: | None | | |
| Danger of explosion | None | | |
| Explosion limits: | n.a. | | |
| Vapour pressure: | n.a. | | |
| Density: | 2,5 g/cm ³ (at 25°C) | | |
| Solubility in water/grease: | insoluble | | |

10. Stability and Reactivity

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| Conditions to be avoided: Molten alkali metals, Temperatures >330°C |
| Materials to be avoided: Molten alkali metals |
| Dangerous decomposition products: Decomposition at temperatures over 330 °C (cf. Point 5 on this). |
| The product is stable under standard conditions. |

11. Information on Toxicology

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| In the case of intended use no toxicological effects are known. |
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12. Information on Ecology

12.1 Information on elimination (Persistency and degradability)

Degree of elimination: not known

Persistency: Biologically not degradable (self-classification)

12.2 Mobility and (bio) accumulation potential:

water insoluble, fat insoluble, no in vivo resorption, bonding or accumulation known

12.3 Exotoxilogical Effects

Not known

For detailed information e.g. approvals and certificates (potable water, food contact, etc.) please visit www.klinger.co.at → material grade → approvals and certificates.

13. Notes on Disposal

13.1 Product

Recommendation: Dumping on industrial depositories, attention is to be paid to local statutory

regulations. Do not dispose of in an incineration system under any circumstances.

Product contains $\geq 3\%$ organic carbon.

13.2 Contaminated Packaging

Recommendation: Dump on industrial depositories, attention is to be paid to local statutory regulations. Do not dispose of in an incineration system under any circumstances.

14. Information on Transport

14.1 Transport/Further Information

No dangers known.

15. Regulations

Regulations for dangerous material not applicable.

The product covered by this safety information is classified as an article according to regulation (EG) Nr. 1907/2006 (REACH). In compliance with REACH regulation it is not mandatory to issue material safety data sheets for articles.

Accordingly the present safety information is voluntary can not be regarded as a material safety data sheet as defined by regulation (EG) Nr. 1907/2006 (REACH).

Duty to communicate information according to regulation (EG) Nr.1907/2006 (REACH):
The article covered by the present safety information does not contain any substance of very high concern by the candidate list to be included in Annex XIV of REACH exceeding the limit of 0,1% (w/w).

16. Other Information

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The data rely on the present conditions of the knowledge and experiences and serve to describe the product regarding safety precautions which can be met. They do not represent a warranty of the product described by characteristics.

Data sheet issuing range:

Development

Contact person

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Revision state: 01

| Revision/Modification | Point / Sheet | Date |
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