



MATERIAL SAFETY DATA SHEET

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COMERCIAL PRODUCT NAME: ISOCOMP PTFE fluorocarbon resin filled compounds
including :Ticomp S
END USE: various

1.1 Chemical characterization: ISOCOMP PTFE fluorocarbon resin with fillers such as glass fiber, carbon, carbon fiber, graphite, molybdenum disulphide, bronze, stainless steel, mica, nickel, cadmium-free pigments

1.2 Form: pellets or powder; 1.3 Colour: various; 1.4 Odour:

2 PHYSICAL AND SAFETY DATA

Tested in accordance with:

2.1 Change in physical state:

Melting point: (resin), 327 – 342 °C ASTM D1457
Boiling point: °C

2.2 Density: 2.00 – 4.00 kg/l ASTM D792

2.3 Vapour pressure: n.a.

2.4 Viscosity: n.a.

2.5 Solubility in water insoluble

2.6 PH value: n.a.

2.7 Flash point: n.a.

2.8 Ignition temperature: (resin), > 500 °C ASTM D1929

2.9 Explosion limits: lower: vol.%; upper: vol.%

2.10 Thermal decomposition: (resin), stable up to 260 °C

2.11 Hazardous decomposition products: fluorinated olefins, carbonylfluoride, hydrogen fluoride,

2.12 Hazardous reactions: with magnesium or aluminium powder at 425 °C, with molten alkali metals, or with interhalogen compounds.
Secondary reaction between filler and resin decomposition products are possible, e.g. metal halide formation from bronze filler

2.13 Further information: Perfluoroisobutylene starts forming at around 500 °C, when degradation occurs in the presence of air.

3 TRANSPORTATION Not a dangerous good in the meaning of the transport regulations

4 REGULATIONS



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5.1 Technical protective measures: provide appropriate exhaust ventilation at processing equipment

5.3 Industrial hygiene: Do not contaminate tobacco products. Do not smoke in work area. Wash hands before smoking. General precaution for all plastics elastomers: Do not breath fumes evolved from hot polymer.

5.4 Protection against fire and explosion: Product resists ignition and does not promote flame spread. Take precautionary measures against static discharges.

5.5 Disposal: Can be landfilled, when in compliance with local regulations. Can be incinerated using a scrubber to remove HF, when in compliance with local regulations. Special precautions may be required depending on filler type.

6.1 After spillage/leakage/gas leakage: Remove with vacuum cleaner to avoid dust formation and to prevent slipping hazards.

6.2 Extinguishing media: Suitable: water, carbon dioxide (CO₂), foam, dry powder.

6.3 First aid:

Inhalation: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Consult a physician after significant exposure. See also section 7.

Skin contact: Cool skin rapidly with cold water after contact with molten polymer. Do not peel polymer from the skin. Obtain medical attention.

Eye contact: Rinse with water.

Ingestion: No adverse effects.

6.4 Further information: ALT of PTFE is 400 °C. ALT (Approximate Lethal Temperature) is the temperature at which decomposition products killed at least one rat out of four, after a four hour exposure.

In case of fire, wear a self-contained breathing apparatus and a complete suit protecting against chemicals.

Wear neoprene gloves when handling refuse from fire.

Inhalation of thermal decomposition products from polymer (e.g. through smoking contaminated tobacco) may cause “polymer fume fever”, producing flu-like symptoms in humans. The symptoms do not ordinarily occur until about two hours or more after exposure, and pass within 36 to 48 hours. Experience indicated that there is no long lasting nor cumulative effect.

Occupational exposure limits:



respirable dust: 8-h TWA = $5\text{mg}/\text{m}^3$

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hydrogen fluoride (as F): 8-h TWA = $3\text{ ml}/\text{m}^3 = 2.5\text{ mg}/\text{m}^3$
10-min TWA = $6\text{ ml}/\text{m}^3 = 5\text{ mg}/\text{m}^3$

carbon black: 8-h TWA = $3.5\text{ mg}/\text{m}^3$
10-min TWA = $7\text{ mg}/\text{m}^3$

mica respirable dust: 8-h TWA = $1\text{ mg}/\text{m}^3$

nickel: 8-h TWA = $1\text{ mg}/\text{m}^3$

8 INFORMATION ON ECOLOGICAL EFFECTS

Ecotoxicological information

Aquatic toxicity: No information is available. Toxicity is expected to be low based on insolubility in water.

9 FURTHER INFORMATION

Further safety information on this product is available from ISOCOMP Technologies.

n.a. = not applicable



PERFORMANCE PTFE

This data relates only to the material designated herein and does not apply to use in combination with any other material or in any process. The data is not to be considered as a warranty or quality specification and we assume no liability in connection with its use