

## Safety Data Sheet

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### 1. Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1 Product Identifier

**Material Name:** Apiezon PFPE 501.

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Product Use:** High temperature sealing / lubricating vacuum grease, inert.

**Uses advised against:** None.

#### 1.3 Details of the supplier of the substance or mixture

**Company:** M&I Materials Ltd., Hibernia Way, Trafford Park, Manchester, M32 0ZD, UK.

**Telephone:** +44 (0)161 864 5409.

**Emergency Telephone:** +44 (0)161 864 5439.

**Email:** apiezontech@mimaterials.com.

### 2. Hazards Identification

This product is not classified as hazardous and this document has been compiled for information purposes, in accordance with Regulation (EC) No 1907/2006 Annex II, as amended by Regulation (EU) 2015/830, and OSHA hazard communication guidelines.

#### 2.1 Classification of the substance or mixture

**Regulation (EC) No 1272/2008 (CLP):** Not classified.

#### 2.2 Label elements

**Regulation (EC) No 1272/2008 (CLP):** No symbol or signal word.

#### 2.3 Other hazards

Thermal decomposition at temperatures >300°C can lead to release of toxic and corrosive gases.

### 3. Composition/Information on Ingredients

#### 3 Mixture

##### Composition:

Constituent	CAS Number	Contents
PFPE Base Oil	69991-67-9	75 - 85%
PTFE	9002-84-0	15 - 25%

All constituents are listed on the TSCA inventory.

### 4. First Aid Measures

#### 4.1 Description of first aid measures

**Inhalation:** None envisaged due to the low vapour pressure of the substance.

**Skin:** Wash with soap and water.

**Eyes:** Irrigate with copious amounts of water.

**Ingestion:** Do not induce vomiting, obtain medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

**Inhalation:** No known effect.

**Skin:** Contact with skin may cause slight irritation.

**Eyes:** Contact with eyes may cause slight irritation.

**Ingestion:** Ingestion may cause nausea and vomiting.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No special treatment required.

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**5. Fire Fighting Measures**

**5.1 Extinguishing media**

Carbon dioxide, dry powder, foam or water fog. Do not use water jets.

**5.2 Special hazards arising from the substance or mixture**

Combustion products include fluorine compounds, such as hydrogen fluoride.

**5.3 Advice for fire fighters**

Protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

**6. Accidental Release Measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Spilt product constitutes a slip hazard. Avoid contact with eyes.

**6.2 Environmental precautions**

No special precautions required.

**6.3 Methods and material for containment and cleaning up**

Can be wiped from surfaces and residues cleaned with water and detergent.

**7. Handling and Storage**

**7.1 Precautions for safe handling**

No special precautions required.

**7.2 Conditions for safe storage, including any incompatibilities**

No special precautions required.

**7.3 Specific end use(s)**

No special precautions required.

**8. Exposure Controls/ Personal Protection**

**8.1 Control parameters**

At ambient temperature grease has very low volatility, so development of fumes is highly unlikely. At temperatures approaching 300°C, if thermal decomposition occurs, hydrogen fluoride, carbonyl difluoride and other toxic fumes may be released.

**8.2 Exposure controls**

The level of controls depends on the use. In most cases very small quantities of material are used. Eye washes should be available for emergency use.

**Respiratory protection:** None required.

**Hand protection:** Wash hands after use. For prolonged or repeated skin contact gloves are recommended.

**Eye protection:** Safety glasses with side-shields tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**9. Physical and Chemical Properties**

**9.1 Information on basic physical and chemical properties**

**Appearance:** Semi-solid white grease.

**Odour:** None.

**pH:** Not applicable.

**Melting point:** Data not available.

**Initial boiling point and boiling range:** >270°C.

**Flash point:** Not flammable.

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**Flammability (solid, gas):** Not flammable.  
**Upper/lower flammability or explosive limits:** Data not available.  
**Vapour pressure:**  $1.32 \times 10^{-12}$  Torr at 25°C.  
**Vapour density:** Not applicable.  
**Relative density:** 2.003 @ 25°C.  
**Water solubility:** Insoluble.  
**Solubility:** Data not available.  
**Partition coefficient:** n-octanol/water: Data not available.  
**Auto-ignition temperature:** Data not available.  
**Decomposition temperature:** Data not available.  
**Viscosity:** Not Applicable.  
**Explosive properties:** Data not available.  
**Oxidising properties:** Data not available.

**9.2 Other information**

Not applicable.

**10. Stability and Reactivity**

**10.1 Reactivity**

Stable under normal conditions of use.

**10.2 Chemical stability**

Stable under normal conditions of use.

**10.3 Possibility of hazardous reactions**

Data not available.

**10.4 Conditions to avoid**

Temperatures >250°C.

**10.5 Incompatible materials**

Strong acids, alkalis and oxidizing agents; alkaline metals; alkaline earth metals; powdered metals; halogenated compounds.

**10.6 Hazardous decomposition products**

May liberate toxic fluorine compounds (hydrogen fluoride, carbonyl fluoride) at temperatures >300°C.

**11. Toxicological Information**

**11.1 Information on toxicological effects**

**Likely routes of exposure:** Skin and eyes are the most likely routes for exposure. Accidental ingestion may occur. Inhalation is not expected to be a relevant route of exposure.

**Acute oral toxicity:** Low toxicity: LD50 >2000mg/kg.

**Acute dermal toxicity:** Expected to be of low toxicity: LD50 >2000mg/kg.

**Acute inhalation toxicity:** Low volatility makes inhalation unlikely.

**Skin corrosion/irritation:** Repeated and prolonged skin contact may cause dry skin or irritation.

**Eye corrosion/irritation:** May cause transient irritation.

**Respiratory or skin sensitization:** Not expected to be a skin sensitizer.

**Aspiration hazard:** Not considered an aspiration hazard.

**Carcinogenicity/mutagenicity:** Not considered a mutagenic hazard or carcinogen.

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This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA.

**12. Ecological Information**

When used and/or disposed of as indicated no adverse environmental effects are foreseen.

**12.1 Toxicity**

Data not available.

**12.2 Persistence and degradability**

Data not available.

**12.3 Bioaccumulative potential**

Data not available.

**12.4 Mobility in soil**

Data not available.

**12.5 Results of PBT and vPvB assessment**

Data not available.

**12.6 Other adverse effects**

No other adverse effects envisaged.

**13. Disposal Considerations**

**13.1 Waste treatment methods**

Product and packaging must be disposed of in accordance with local and national regulations. Must not be incinerated due to liberation of toxic gases at temperatures >300°C.

**14. Transport Information**

Not classified as hazardous under air (ICAO/IATA), sea (IMDG), road (ADR) or rail (RID) regulations.

**14.1 UN number**

Not relevant.

**14.2 UN proper shipping name**

Not relevant.

**14.3 Transport hazard class**

Not relevant.

**14.4 Packing group**

Not relevant.

**14.5 Environmental hazards**

Not relevant.

**14.6 Special precautions for user**

Not relevant.

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**15. Regulatory Information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Product is not subject to Authorisation under REACH.  
All constituent substances in this product are listed in the TSCA inventory.

**15.2 Chemical safety assessment**

A chemical safety assessment has been performed for this substance.

**16. Other Information**

Compiled according to regulation 1907/EC/2006 Annex II, as amended by Regulation (EU) No. 2015/830 and OSHA hazard communication guidelines.

**16.1 Changes from last issue:**

Sections 2 & 16: Update to regulations referenced.

The information provided in this Safety Data Sheet is correct to our best knowledge, information and belief at the date of its publication. It is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not be construed as guaranteeing any specific property of the product.