

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product Identifier**
Polytetrafluoroethylene (PTFE), sintered material.
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**
Relevant identified uses: Fluoropolymer for industrial use e.g. laboratory equipment.
Uses advised against: No further relevant information available.
- 1.3 Details of the supplier of the safety data sheet**
Supplier: Cowie Technology Group Ltd
Address: Ridgeway, Coulby Newham, Middlesbrough, TS8 0TQ, England.
Telephone: +44 (0) 1642 599190
Email: enquiries@cowie.com
- 1.4 Emergency telephone number**
+44 (0) 1642 599190

SECTION 2: Hazards identification

- 2.1 Classification of the substance of mixture**
The substance is not classified as hazardous according to CLP Regulation, (EC) No. 1272/2008.
- 2.2 Label elements**
Not applicable.
- 2.3 Other hazards**
May cause thermal burns at high temperature.
The thermal decomposition vapors of fluorinated plastics may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco. Vapours may cause irritation in eyes, nose, throat or lung.
This substance/mixture contains no components considered to be either PBT or vPvB at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Ingredient	C.A.S Number	EC Number	% by Wt
Polytetrafluoroethylene	9002-84-0	618-337-2	100

Hazardous ingredients: No hazardous ingredients.

SECTION 4: First aid measures

- 4.1 Description of first aid measures**
The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.
- Inhalation: Remove person to fresh air. Get medical attention if symptoms occur.
- Skin Contact: Wash with water and soap as a precaution. Get medical attention if symptoms occur.
Heated material: Immediately flush skin with cold water for 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Cover affected area with a clean dressing. Get immediate medical attention.
- Eye Contact: Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
Heated material: Immediately flush eyes with cold water for 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Get immediate medical attention.
- If Swallowed: Rinse mouth thoroughly with water. No need for first aid is anticipated.
- 4.2 Most important symptoms and effects, both acute and delayed**
Polymer Fume Fever / No critical symptoms or effects.
- 4.3 Indication of any immediate medical attention and special treatment needed.**
Treat systematically and supportively.

SECTION 5: Fire fighting measures**5.1 Extinguishing media**

Water spray; alcohol-resistant spray; carbon dioxide (CO₂); dry chemical.
Non-combustible. Choose material suitable for surrounding fire.

5.2 Special hazards arising from the substance or mixture

Exposure to thermal combustion products may be hazardous to health (see Section 10.6 for hazardous decomposition products).

5.3 Advice for firefighters

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

SECTION 6: Accidental release measure**6.1 Personal precautions, protective equipment and emergency procedures**

Evacuate area, ventilate room, wear personal protective equipment.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and materials for containment and cleaning up

Collect released material in a suitable container for disposal according to regulations.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Do not breathe thermal decomposition products.

Avoid skin contact with hot material.

Store work clothes separately from other clothing, food and tobacco products.

Do not breathe dust/fume/gas/mist/vapour/spray.

Do not eat/drink/smoke when using this product.

Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to polymer fume fever caused by the formation of the hazardous decomposition products.

7.2 Conditions for safe storage, including any incompatibilities

Store away from heat and strong oxidizing agents.

Store at room temperature. Store in a clean, dry place.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

There are no occupational exposure or biological limit values available for the substance listed in Section 3.

8.2 Exposure controls**8.2.1 Appropriate engineering controls**

Provide appropriate local exhaust when product is heated. For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines.

8.2.2 Individual protection measures, such as personal protective equipment

Eye / Face: It is recommended to wear Safety Glasses with side shields or Indirect Vented Goggles.

Skin: Avoid skin contact, wear protective work clothing. Wash hands after handling.

Hand: Wear heat resistant gloves when handling hot material.

Respiratory: Not necessary if room is well ventilated. Use suitable respiratory protective device in case of insufficient ventilation. During heating, avoid breathing of vapours. Use a positive pressure supplied-air respirator if there is a potential for exposure from an uncontrolled release, exposure levels are

not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

Thermal: Wear heat resistant gloves when handling hot material.

8.2.3 Environmental exposure controls

No further relevant information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Colour	White
Odour	Odourless
Odour Threshold	No data available
Melting Point	320-345°C
Boiling Point	Not applicable
Flammability	Not classified
Lower Explosion Limit, LEL	Not applicable
Upper Explosion Limit, UEL	Not applicable
Flash Point	Not applicable
Auto ignition temperature	Not applicable
Decomposition temperature	No data available
pH	Not applicable
Viscosity	Not applicable
Solubility in water	Insoluble
Particle Coefficient: n-octanol/water	No data available
Vapour Pressure	Not applicable
Density	2.2g/cm ³
Relative Vapour Density	Not applicable
Particle characteristics	No data available

9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.
 Hazardous decomposition products will be formed at elevated temperatures.
 Can react with strong oxidising agents.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Alkali and alkaline earth metals.
 Reactions with metals in powder form occur from 370°C onwards.
 Strong oxidising agents (Fluorine, F₂; Oxygen Difluoride, OF₂; Chlorine Trifluoride, ClF₃).

10.6 Hazardous decomposition products

Thermal decomposition: Hydrogen fluoride, Carbonyl fluoride, Carbon monoxide, Carbon dioxide, Low molecular weight fluoropolymers and other toxic vapor, gas or particles.

SECTION 11: Toxicological information

11.1 Information on toxicological information

Acute toxicity	Not classified based on available information.
Skin corrosion/irritation	Not classified based on available information.
Serious eye damage/irritation	Not classified based on available information.
Respiratory or skin sensitisation	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.

Carcinogenicity
Reproductive toxicity
STOT-single exposure
STOT-repeated exposure
Aspiration hazard

Not classified based on available information.
Not classified based on available information.
Not classified based on available information.
Not classified based on available information.
Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Substance is not listed.

SECTION 12: Ecological information**12.1 Toxicity**

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

The substance/mixture does not contain components considered to be either PBT or vPvB at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties at levels of 0.1% or higher.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Dispose of in accordance with local regulations.
Note, if incinerated combustion products will include hydrogen fluoride.

SECTION 14: Transport information**14.1 UN number**

Not regulated as a dangerous good.

14.2 UN proper shipping name

Not regulated as a dangerous good.

14.3 Transport hazard class(es)

Not regulated as a dangerous good.

14.4 Packing group

Not regulated as a dangerous good.

14.5 Environmental hazards

Not regulated as a dangerous good.

14.6 Special precautions for user

Not regulated as a dangerous good.

14.7 Maritime transport in bulk according to IMO instruments

Not regulated as a dangerous good.

SECTION 15: Regulatory information**15.1 Safety, health and environment regulation/legislation specific for the substance or mixture**

UK REACH Annex XIV Substances Subject to Authorization – Not applicable.
UK REACH Annex XVII Restrictions on Certain Dangerous Substances – Not applicable.
UK REACH Article 59, Candidate List of Substances of Very High Concern (SVHC) – Not applicable.

Regulation (EU) 2019/1021 The Persistent Organic Pollutants Regulations – Not applicable.
 Regulation (EU) 1005/2009 Substances that deplete the ozone layer – Not applicable.
 Directive 2012/18/EU, the control of major-accident hazards involving dangerous substances - Not applicable.
 Regulation (EC) No 649/2012 concerning the export and import of hazardous chemicals – Not Applicable.

International Inventories:

Australia, AICS	Canada, DSL
China, IECSC	EU, EINECS
Japan, ENCS	Korea, KECL
New Zealand, NZIoC	Philippines, PICCS
Taiwan, TCSI	USA, TSCA

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

16.1 Abbreviations:

AICS: Australia Inventory of Chemical Substances
 CAS: Chemical Abstracts Service
 CLP: Classification, Labelling and Packaging
 DSL: Domestic Substances List
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ENCS: Existing and New Chemical Substances
 IECSC: Chinese Inventory of Existing Chemical Substances
 IMO: International Maritime Organisation
 KECL: Korea Existing Chemicals Inventory
 NZIoC: New Zealand Inventory of Chemicals
 OSHA: Occupational, Safety and Health Administration
 PBT: Persistent, Bioaccumulative, Toxic
 PICCS: Philippines Inventory of Chemicals and Chemical Substances
 PPE: Personal Protective Equipment
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
 SDS: Safety Data Sheet
 STOT: Specific Target Organ Toxicity
 TCSI: Taiwan Chemical Substance Inventory
 TSCA: Toxic Substances Control Act
 UN: United Nations
 vPvB: very Persistent, very Bioaccumulative

16.2 Key literature reference and sources:

Supplier safety data sheets
<https://echa.europa.eu/information-on-chemicals>

16.3 Disclaimer:

The information in this Safety Data Sheet (SDS) is believed to be correct to the best of our knowledge at the date issued. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. User is responsible for determining whether the Cowie Technology Group Ltd product is fit for a particular purpose and suitable for user's method of use or application.

16.4 Revision History:

DATE	ISSUE	PAGE	DETAILS OF AMENDMENT
13/05/2024	04	ALL	SDS revised in line with the requirements of regulation (EU) 1907/2006 (REACH)