PTFE Powder

1. IDENTIFICATION
Material: PTFE powder
Supplier: Hagen Automation Ltd
Address:
Hagen Automation, Greybern House, Templars Way, Sharnbrook, MK441PY United Kingdom
Emergency Tel: 0044 7739 854 883

2. COMPOSITION
Polytetrafluoroethylene CAS NUMBER 9002-84-0 -100%
Symptoms relating to use: Not classified as Hazardous in normal usage.

3. HAZARDS IDENTIFICATION
Emergency Overview
WHMIS Classification -Not WHMIS controlled.
Not a dangerous substance according to GHS.
HMIS Classification
Health hazard: 0
Flammability: 0
Physical hazards: 0

Potential Health Effects:
Inhalation - May be harmful if inhaled. May cause respiratory tract irritation.
Skin - May be harmful if absorbed through skin. May cause skin irritation.
Eyes - May cause eye irritation.
Ingestion - May be harmful if swallowed.

3.1 The primary hazard associated with PTFE is the inhalation of fumes from overheating or burning. Heating PTFE above 300 degrees centigrade may produce a fine particulate fume
3.2 Polymer fume fever, a temporary flu-like condition with fever chills, nausea, shortness of breath, chest tightness, muscle or joint ache.
3.3 The symptoms are often delayed 4 to 24 hours after exposure. These signs are generally temporary, lasting 24-48 hours and resolve without further complications.
3.4 However, some individuals with repeat episodes of polymer fume have reported persistent pulmonary effects. Exposure to decomposition products from PTFE heated above400 degrees C may cause pulmonary inflammation, haemorrhage or oedema.
3.5 These more serious consequences of exposure may occur from extreme thermal decomposition of PTFE witch can liberate fume particles, and toxic gases especially under condition of poor ventilation or confined spaces.
3.6 These decomposition products may initially produce chest tightness or pain, chills, fever, nausea, with shortness of breath, cough, wheezing and progression into pulmonary oedema.

4. FIRST AID MEASURES
If inhaled - If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact - Wash off with soap and plenty of water.

In case of eye contact - Flush eyes with water as a precaution.
If swallowed - Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE FIGHTING MEASURES
5.1 Suitable Extinguishing Media:
Use water spray, fog or mist, alcohol foam, or dry chemicals to extinguish.
5.2 Special Hazards Arising from the Substance or Mixture:
Exposure to high temperatures may release flammable hydrocarbons that can accumulate in confined areas and present a fire or explosion hazard. Burning may release hydrocarbons, and oxides of carbon.
5.3 Advice for Fire-Fighters:
Firefighters should wear full emergency equipment and approved positive pressure self-contained breathing apparatus for all fires involving chemicals.

6. ACCIDENTAL RELEASE MEASURES
6.1 Personal Precautions, Protective Equipment and Emergency Procedures:
Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Keep unnecessary personnel away. Spilt product maybe slippery!
6.2 Environmental Precautions:
Do not flush into surface water or sanitary sewer system. Notify local authorities if product enters sewers or public waters.
6.3 Methods and Material for Containment and Cleaning up:
Stop spill at source if safe to do so. Contain spill and pump liquid into a suitable container or absorb with an inert absorbent and place in a suitable container.
6.4 Reference to Other Sections:
Refer to Section 8 for Personal Protective Equipment and Section 13 for Disposal information

7. HANDLING AND STORAGE
7.1 Precautions for Safe Handing:
Keep away from heat, sparks and open flame. Use with adequate ventilation. Avoid contact with eyes, skin and clothing.
Wash exposed skin thoroughly with soap and water after use. Wear appropriate personal protective equipment as specified in Section 8. Observe good industrial hygiene practices.
7.2 Conditions for Safe Storage, Including Any Incompatibilities:
Store in a cool, dry, well-ventilated area. Keep container tightly closed. Store away from oxidizing agents and other incompatible materials. Keep away from open flames, sparks, and excessive heat. Store in containers made of stainless steel, HDPE, PET, or glass.
7.3 Specific End Use(s):
Lubricant for use on plastic and other materials in contact. Lubricant additive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Direct contact with the skin should be avoided - wear gloves
Specific Eye/face Protection: Chemical safety glasses recommended.
Specific Skin Protection: Protective gloves recommended if needed to avoid prolonged contact. Wear protective clothing as necessary to avoid skin contact.
Specific Respiratory Protection: Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).For operations where exposure limits are exceeded, an approved respirator with an organic vapor cartridge and a dust/mist pre-filter or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form = powder
Colour = white
Safety data
pH = no data available
Melting point/range: 321 °C (610 °F)
Boiling point = no data available
Flash point = no data available
Ignition temperature = no data available
Auto-ignition temperature = no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure no data available
Density 2.15 g/mL at 25 °C (77 °F)
Water solubility = no data available

10. STABILITY AND REACTIVITY
Hazardous decomposition products - Combustion will generate smoke, carbon monoxide, carbon dioxide, may produce formaldehyde under decomposition by fire.
Hazardous reactions - None under normal conditions.
Hazardous properties - None under normal conditions.
Materials to avoid - Strong oxidizing agents.
Conditions to avoid - Naked flames, fires.

11. TOXICOLOGICAL INFORMATION
Inhalation Not expected to prevent a significant inhalation hazard under anticipated conditions of normal use.
Inhalation of mists or vapours at elevated temperatures may cause respiratory irritation.
Dermal Repeated or prolonged exposure may have a defatting effect or cause dermatitis.
Ocular Redness, pain may occur.

12. ECOLOGICAL INFORMATION
Prevent entry to sewers and public water ways.
Ecological Effects Not soluble in water, so only minimally bio-degradable

13. DISPOSAL INFORMATION
General - Dispose of in a safe manner in accordance with local/national regulations
Disposal method - In accordance with local/national regulations - may be taken to waste disposal site.
Disposal of used packaging - Use a licensed waste disposal contractor.

14. TRANSPORT INFORMATION
Transport: Not classified as hazardous for transport.

15. REGULATORY INFORMATION
EC Classification: The material is not dangerous for transport or supply.
Risk Phrases
None
Safety Phrases:
None

16. OTHER INFORMATION
Shelf life >12 months

References:

* European agreement concerning the international carriage of dangerous goods by road (ADR) volumes I & II 1999
* Commission Directive 93/112/EC of 10/12/93, (O.J. No. 314 of 16/12/93 pg 38)
* Council Directive 67/548/EEC and all appropriate A.T.P'S

Important Note:

1. Before any product is used the label should be carefully read and current safety literature and information consulted.
2. The product information in this Data Sheet is to the best of Hagen Automation's knowledge correct as at the date of publication. User should contact Hagen Automation for updated advice and in any event satisfy themselves that the product is entirely suitable for their purpose.