

1. Identification of the substance/preparation and company

Product name: Eriflon PVDF

Supplier: ERIKS See solutions-in-plastics.info for contact details

2. Composition/information on ingredients

Product:	Semi-finished products / finished parts machined from semi-finished products
Main components:	Polyvinylidenefluoride, contains evtl. colour pigments
Standard short-cut:	PVDF

3. Hazards identification

Classification and labelling:

The product is not classified and doesn't need any labelling.

Other hazards:

There are no known risks, if the regulation/details for handling are observed.

4. First aid measures

After inhalation:

After accidental inhalation of fumes or thermal decomposition products, remove person from the danger zone. Oxygen supply, apply artificial respiration if necessary. Keep quiet and warm, seek medical help immediately. Symptoms of poisining often first appear after some hours.

After skin contact:

No special measures necessary.

After eye contact:

Hold the eyes open and rinse with water, lukewarm if possible, for a sufficiently long period of time (at least 10 minutes).

If a foreign body (splinter, chip) enters the eye do not rub. Immobilize the eye, cover both eyes with bandages. Consult an eye specialist.

Indication of any immediate medical attention and special treatment needed: No special measures necessary.



5. Firefighting measures

Suitable extinguishing media:

Water, foam, dry chemical, CO2. Adapted to the nature and extend of fire.

Hazardous decomposition products:

The main products formed in case of overheating and combustion are carbon monoxide, carbon dioxide, fluorinated hydrocarbons and hydrofluoric acid. Formation of further hazardous decomposition products depends upon the fire conditions and can not be excluded.

Special protective equipment:

Firemen should wear self-contained breathing apparatus and protective clothing to prevent contact with skin and/or eyes. If exposed to combustion fumes in a high concentration, bring the victim into fresh air. If molten material contacts skin, cool rapidly with cold water and obtain medical attention for removal of adhering material and treatment of the burn.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No special measures necessary.

Environmental precautions:

No special measures necessary.

Methods and material for containment and cleaning up:

Mechanical cleaning up. Avoid dry sweeping. Use an appropriate suction device for cleaning to avoid the generation of dust.

7. Handling and storage

Machining:

During machining of the semi-finished products, evacuate swarf to prevent slipping or tripping hazard and observe the maximum allowable concentration of dust levels on the workplace which apply in your country. Wear safety goggles during machining.

Storage:

The products shall be stored indoors in a normal environment (air at $10 - 30^{\circ}$ C / 30 - 70% RH) and kept away from any source of degradation such as sunlight, UV-lamps, chemicals (direct or indirect contact), ionising radiation, flames, etc.

Dimensional changes (camber, warpage, shrinkage ...) of the products as well as slight colour shifts of the external surfaces can occur with time. The latter does generally not pose a problem in case of semi-finished products since the surface-layer is mostly removed anyway upon machining them into finished parts.

Safety measures:

Standard industrial safety recommendations shall be observed. Temperatures above the melting temperature shall be avoided.





8. Exposure controls personal protection

Control parameters:

In case of mechanical processing the general limit for dust is valid.

Exposure controls:

The working area should be well ventilated. Respiratory protection:

Wear protective breathing apparatus in case of insufficient ventilation. Composite filter for organic, inorganic, acetous inorganic and alkaline fumes/vapours and toxic particles (e.g. DIN EN 14387 type ABEK-P3).

Eye/face protection:

For mechanical operations wear safety glasses with side pieces or fully closed and tight-fitting goggles (DIN EN 166).

Hand protection/skin protection:

Skin protection should be used (barrier cream containing tanning agent).

9. Physical and chemical properties

Density:	~ 1,8 g/cm ³
Melting temperature:	> 170 °C
Thermal decomposition:	> 290 °C
Self-ignition temperature:	> 400 °C
Solubility in water:	insoluble

10. Stability and reactivity

Chemical stability:

Product is stable. No hazardous reactions known when stored and handled according to instructions and used for its intended purpose.

Conditions to avoid:

Do not heat to a temperature above the melting or decomposition temperature.

Incompatible materials:

Strong alkalis, esters, ketones, silicate, boron, titanium dioxide at high temperature.

Hazardous decomposition products:

No decomposition and hazardous reactions known when handled according to instructions.

By overheating of the material gaseous, toxic and caustic decomposition products, especially hydrofluoric acid, tetrafluoroethylene, hexafluoropropylene, perfluoroisobutylene and carbonyl difluoride may be generated.



11. Toxicological information

Acute toxicity:

With proper use and in accordance with regulations there are no known dangers to health.

Slight inhalation of thermal decomposition products or smoking contaminated tobacco can cause "fluorine polymer fever" after 2 - 6 hours (allergic alveolaritis with influenza-like symptoms: high temperature, shivering, chest pains, cough, increased pulse). Treatment is generally not necessary, symptoms disappear after 48 hours. The result of massive inhalation of thermal decomposition products (in temperatures > 450 °C) is that after a symptomless time (4 - 24 hours) pulmonary oedema starts with the danger of suffocation.

Chronic toxicity:

When used and handled according to specifications, the product does not have any harmful effects.

Other information:

In our experience and according to the literature provided to us the product does not cause any noxious effects when used and handled according to regulations.

12. Ecological information

No relevant information available.

Due to the consistency of the product a disperse distribution in the environment is not likely. Therefore, according to the present state of knowledge negative ecological effects are not expected.

13. Disposal considerations

Waste treatment methods:

Product residues can be recycled or treated in an energy recovery plant. When segregated, unpolluted product residues can be recycled mechanically. European waste cataloque:

The unpolluted product has no dangerous properties and is therefore not a hazardous waste within the meaning of regulation on the european List of wastes. Waste codes/waste identification:

The exact assignment to a waste code must be carried out source- and use-related. Proposals for the waste code numbers based on the probable use of the unpolluted product:

07 02 13 - waste plastic

12 01 05 - plastics shavings and turnings

17 02 03 - plastic construction and demolition wastes

20 01 39 - plastics from separately collected fractions

Packaging:

Uncontaminated or cleaned packaging can be recycled without verification.

14. Transportation information

International transport regulations: Not applicable



15. Regulatory information

EU regulations:

According to regulation (EC) No 1272/2008 (CLP), directives 67/548/EC and 1999/45/EC articles are not subject to classification and labelling requirements. No dangerous substance in the sense of EU-directives.

16. Other information

This declaration is also valid for Foodgrade (FG) materials. This information is furnished without warranty, expressed or implied, as to accuracy or completeness. This information is obtained from various sources including the manufacturer and other third party sources. The safety data sheet only describes the products in aspect to their safety requirements.

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