

TECAFORM ADAF

1.1 MATERIAL/PRODUCT IDENTIFICATION

TRADENAME: TECAFORM ADAF

1.2 COMPANY IDENTIFICATION

ENSINGER GmbH
Rudolf-Diesel-Straße 8
D-71154 Nufringen
Tel. 07032/819-0

EMERGENCY NUMBER: Tel. (+49) 30 19240 (Giftnotrufzentrum Berlin)

2.1 COMPOSITION

CHEMICAL COMPOSITION: Based on polyoxymethylene homo-polymer (POM AD), containing polytetrafluoroethylene (PTFE), possibly reinforcing materials, fillers, pigments, dyes, additives.

2.2 INFORMATION ON INGREDIENTS

This product contains no dangerous components.

3. POTENTIAL RISKS

This product is not harmful.

4. FIRST AID MEASURES

INHALATION: After accidental inhalation of fumes or thermal decomposition products, using self-protection (short term filter mask type B, or breathing apparatus), remove person from the danger zone. Keep warm and quiet in fresh air. Seek medical help immediately. Symptoms of poisoning often first appear after some hours.

SKIN CONTACT: After contact with molten polymer, immediately cool with cold water for a prolonged time. Remove affected clothing. Do not peel polymer from skin. Cover burns with sterile dressings. Obtain medical attention.

EYE CONTACT: If a foreign body (splinter, chip) enters the eye do not rub. Rinse immediately with plenty of water. Seek medical attention.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Water, foam, dry powder, carbon dioxide

UNSUITABLE EXTINGUISHING MEDIA: None known

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTING: Wear self contained breathing apparatus and protective clothes to prevent contact with skin and eyes.

ADDITIONAL ADVICE: This product ignites in a flame and continues to burn on removal of the source. With thermal decomposition toxic, acidic and combustible gasses and steam are released. There is a danger of the fire spreading through spontaneous ignition of the gaseous decomposition products. Molten product must therefore be cooled with water. Water used to extinguish the fire and fire residue must be collected and disposed of in accordance with local regulations..

6. ACCIDENTAL RELEASE MEASURES

ENVIRONMENTAL PRECAUTIONS: Before entry of swarf waste to sewage it should be mechanically cleaned of product remainders.

METHODS FOR CLEANING UP: Mechanical

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7.1 HANDLING

- GENERAL ADVICE:** Avoid overheating of material by improper handling.
Avoid dust generation.
- TECHNICAL MEASURES:** For mechanical operations local extraction / ventilation is recommended to ensure that less than the 8.1 limit is achieved. Where dust is produced, measures must be taken to avoid static electricity discharge.

7.2 STORAGE

- GENERAL ADVICE:** The appropriate company regulations for fire prevention are to be followed.
- SPECIAL REQUIREMENTS:** Large amounts of product should not be stored with inflammable materials. If in a fire, polymers containing fluorine can cause relatively toxic gasses to be released.

8.1 EXPOSURE CONTROLS

- GUIDELINES FOR MATERIALS WITHIN THE WORKINGPLACE:**
For mechanical operations the following are to be observed (TRGS 900, Standard 2000)

Respirable dust:	MAC 6 mg/m ³
Formaldehyde: (CAS 50-00-0)	MAC 0,5 ml/m ³ short term peak concentration category =1= comment „H“, skin absorption, comment „Y“, no risk of embryo damage if MAC is observed, carcinogenic category 3

8.2 PERSONAL PROTECTION

- RESPIRATORY PROTECTION:** During dusty operations use respiratory protection (e.g. filter mask with P1 filter)
- EYE PROTECTION:** For mechanical operations wear safety glasses with side pieces.
- SKIN PROTECTION:** Skin protection should be used (barrier cream).
- HYGIENE MEASURES:** General industrial hygiene regulations are to be observed.
Wash hands before breaks and at the end of workday.
Tobacco should not be kept in the workplace.
Do not eat, drink or smoke in the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Solid (semifinished or finished parts)	
COLOUR:	Various, dependent on colourant	
ODOUR:	Odourless	
DENSITY (20 °C):	1,54 g/cm ³	DIN 53479
MELTING POINT/RANGE:	175 °C	DIN 53736
DECOMPOSITON TEMPERATURE:	> 230 °C	
IGNITION TEMPERATURE:	322 °C	ASTM-D 1929
EXPLOSION LIMITS	Not applicable	
SOLUBILITY (20 °C):	Insoluble in water In organic solution applications insoluble	

EU-MATERIAL SAFETY DATA SHEET

according to guidelines 91/155/EWG

issue 285/05 from 27.10.04

replaces 285/04

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10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	Temperatures > 230 °C (Start of the thermal decomposition)
SUBSTANCES TO AVOID:	Strong acids, oxidizing media
HAZARDS DECOMPOSITION PRODUCTS:	Predominantly carbon dioxide, carbon monoxide and formaldehyde. In low concentrations also hydrofluoric acid, tetrafluoroethylene, hexafluoropropylene, perfluoroisobutylene, carbonyl fluoride.
ADDITIONAL INFORMATION:	None

11. TOXICOLOGICAL INFORMATION

With proper use and in accordance with regulations there are no known dangers to health.
Contact with molten product can cause burns.
Slight inhalation of thermal decomposition products or smoking contaminated tobacco can cause "fluorine polymer fever" after 2 - 6 hours (allergenic alveolitis 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.

12. ECOLOGICAL INFORMATION

Because of insolubility in water separation by filtration or sedimentation is possible.

13. DISPOSAL CONSIDERATIONS

Uncontaminated product can be recycled.
If no use is possible, product waste can, in accordance with official local regulations, be mixed with household waste or incinerated in an appropriate place. Burning is only allowed when fluoridic hydrogen has been removed by flue gas washing.
Waste product code No. for uncontaminated product (European waste catalogue): 20 01 06 other plastics

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

15.1 EU GUIDELINES

No warning necessary.

15.2 NATIONAL REGULATIONS (GERMANY)

GefStoffV (15.11.99):	No warning necessary
WHG (12.11.96):	Not harmful to water in accordance with VwVwS (17.05.99).

16. OTHER INFORMATION

None

This statement is valid for pure product. It is based on our current knowledge and offers no assurance of properties. It is the user's responsibility to ensure that existing legislation and regulations are followed.
