

MATERIAL SAFETY DATA SHEET according to Regulation (EU) 453/2010
DEUREX® F 6001 W

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

1.1. Product identifier

Trade names: DEUREX® F 6001 W

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

Relevant identified uses
Additive

1.3. Details of the supplier of the safety data sheet

DEUREX AG
Dr.-Bergius-Str. 8 – 12
D - 06729 Elsteraue
Tel.: +49(0)3441 / 8 29 29 29, Fax: +49(0)3441 / 8 29 29 28
Material-Safety@Deurex.com
www.Deurex.com

1.4. Emergency telephone number

Common poisons information centre of the Federal States
Mecklenburg-Western Pomerania, Saxony, Saxony-Anhalt and Thuringia.
D-99089 Erfurt
Tel.: +49(0)361-730730

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 [CLP]:
Serious Eye Damage/Irritation: Category 1

2.2. Label elements

Signal word

Danger

Symbols

GHS07

Pictograms



Hazard Statements

Causes serious eye damage.

Precautionary Statements

Prevention:

Wear eye/face protection.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

2.3. Other hazards

May cause thermal burns.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Chemical identity and characterisation:

Chemical identity: Water based dispersion of a micronized Polytetrafluorethylene (PTFE)

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|-------------------------|-------------------|----------------|
| Polytetrafluoroethylene | 9002-84-0 | 45 – 55 |
| Water | 7732-18-5 | 35 – 55 |
| Polyether Polymer | 9043-30-5 | 1 - 10 |

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General informations: A hazard originated from the substance can occur during processing in hot state (risk of burning)!

Following inhalation: Remove person to fresh air. If you feel unwell, get medical attention.

Following skin contact: Immediately flush skin with large amounts of cold water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Cover affected area with a clean dressing. Get immediate medical attention.

Following eye contact: Immediately flush eyes with large amounts of water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Get immediate medical attention.

Following ingestion: Rinse mouth. If you feel unwell, get medical attention.

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

See Section 11.1. Information on toxicological effects.

- 4.3. Indication of any immediate medical attention and special treatment needed**
Not applicable.

SECTION 5: FIREFIGHTING MEASURES

- 5.1. Suitable Extinguishing media**
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.
- 5.2. Special hazards arising from the substance or mixture**
Exposure to extreme heat can give rise to thermal decomposition.
- 5.3. Advice for firefighters**
When firefighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures**
Evacuate area. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.
- 6.2. Environmental precautions**
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.
- 6.3. Methods and material for containment and cleaning up**
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible.
Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid breathing of vapors created during cure cycle. Do not breathe thermal decomposition products. Avoid skin contact with hot material. For industrial or professional use only. Store work clothes separately from other clothing, food and tobacco products. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of hazardous decomposition products.

7.2. Conditions for safe storage, including any incompatibilities

No special storage requirements.

7.3. Specific end use(s)

Risk of burn when handling with liquid (hot) product.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>Agency</u> | <u>Limit type</u> |
|-------------------------|-------------------|---------------|----------------------------------------------------------------------------------------------|
| Polytetrafluoroethylene | 9002-84-0 | CMRG | TWA(as respirable dust): 5 mg/m ³ ;TWA(as total dust): 10 mg/m ³ |

CMRG : Chemical Manufacturer's Recommended Guidelines
TWA: Time-Weighted-Average

8.2. Exposure controls

8.2.1. Appropriate technical safety devices

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. 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. Personal protective equipment

General protective and hygiene measures:

Usual precautions for handling chemicals. Do not eat, drink or smoke during work, and wear suitable protective clothing. Do not breathe dust. Wash hands before breaks. Remove contaminated clothing. After contact, clean skin with water and soap or use suitable cleanser. Do not use organic solvents.

Eye / Face protection:

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Full Face Shield

Indirect Vented Goggles

Skin / Body protection:

No chemical protective gloves are required.

Gloves made from the following material(s) are recommended: Nitrile Rubber

Apron – Nitrile

Respiratory protection

During heating:

Use a positive pressure supplied-air respirator if there is a potential for over exposure from an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Full facepiece supplied-air respirator

For questions about suitability for a specific application, consult with your respirator manufacturer.

Thermal hazards

Wear heat insulating gloves when handling hot material to prevent thermal burns.

8.2.3. Environmental exposure controls

Information on environmental exposure → Chapters 6, 7 and 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | |
|-----------------------------------------|-------------------------------------------|
| General Physical Form: | Liquid |
| Specific Physical Form: | Emulsion |
| Odor, Color, Grade: | White, slight ammonia odor |
| Odor threshold: | No Data Available |
| pH: | 8 - 11 |
| Melting point: | Not Applicable |
| Boiling Point: | 100 °C |
| Flash Point: | No flash point |
| Evaporation rate | 1 [Ref Std: WATER=1] |
| Flammability (solid, gas): | Not Applicable |
| Flammable Limits(LEL): | Not Applicable |
| Flammable Limits(UEL): | Not Applicable |
| Vapor Pressure: | 25 mbar [20 °C] |
| Vapor Density: | 25 [20 °C] [Ref Std: AIR=1] |
| Density: | 1.2 - 1.6 g/ml |
| Specific Gravity: | 1.2 - 1.6 [@ 23 °C] [Ref Std: WATER=1] |
| Solubility in Water: | Negligible [Details: Polymer not soluble] |
| Solubility- non-water: | No Data Available |
| Partition coefficient: n-octanol/ water | No Data Available |
| Autoignition temperature: | Not Applicable |
| Decomposition temperature: | No Data Available |
| Viscosity: | 5 - 15 MPa-s |
| Volatile Organic Compounds: | Not Applicable |
| Percent volatile: | 33 - 37 % |
| VOC Less H2O & Exempt Solvents: | Not Applicable |

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

| Substance | Condition |
|-------------------------------|-----------------------------------------|
| Carbonyl Fluoride | At Elevated Temperatures - above 380 °C |
| Carbon monoxide | At Elevated Temperatures - above 380 °C |
| Carbon dioxide | At Elevated Temperatures - above 380 °C |
| Hydrogen Fluoride | At Elevated Temperatures - above 380 °C |
| Ammonia | At Elevated Temperatures - above 380 °C |
| Perfluoroisobutylene (PFIB) | At Elevated Temperatures - above 380 °C |
| Toxic Vapor, Gas, Particulate | At Elevated Temperatures - above 380 °C |

If the product is exposed to extreme condition of heat from misuse or equipment failure, toxic decomposition products that include hydrogen fluoride and perfluoroisobutylene can occur.

SECTION 11: TOXICOLOGICAL INFORMATION

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Vapors from heated material may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

During heating:

Polymer Fume Fever: Sign/symptoms may include chest pain or tightness, shortness of breath, cough, malaise, muscle aches, increased heart rate, fever, chills, sweats, nausea and headache.

Skin Contact:

During heating:

Thermal Burns: Signs/symptoms may include intense pain, redness and swelling, and tissue destruction.

Eye Contact:

During heating:

Thermal Burns: Signs/symptoms may include severe pain, redness and swelling, and tissue destruction.

Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

| <u>Name</u> | <u>Route</u> | <u>Species</u> | <u>Value</u> |
|-------------------------|--------------|----------------|------------------------------------|
| Overall product | Ingestion | | calculated ATE > 5,000 mg/kg |
| Polytetrafluoroethylene | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Polytetrafluoroethylene | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| Polyether Polymer | Ingestion | Rat | LD50 1,350 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| <u>Name</u> | <u>Species</u> | <u>Value</u> |
|-------------------------|------------------|---------------------------|
| Polytetrafluoroethylene | Human and animal | No significant irritation |
| Polyether Polymer | Rabbit | Mild irritant |

Serious Eye Damage/Irritation

| <u>Name</u> | <u>Species</u> | <u>Value</u> |
|-------------------------|------------------------|---------------------------|
| Polytetrafluoroethylene | Professional judgement | No significant irritation |
| Polyether Polymer | Rabbit | Corrosive |

Skin Sensitization

| <u>Name</u> | <u>Species</u> | <u>Value</u> |
|-------------------------|----------------|------------------------------------------------------------------------------|
| Polytetrafluoroethylene | Human | Not sensitizing |
| Polyether Polymer | Human | Some positive data exist, but the data are not sufficient for classification |

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

For the component/components, either no data are currently available or the data are not sufficient for classification.

Carcinogenicity

| <u>Name</u> | <u>Route</u> | <u>Species</u> | <u>Value</u> |
|-------------------------|---------------|-------------------------|------------------------------------------------------------------------------|
| Polytetrafluoroethylene | Not Specified | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |

Reproductive Toxicity

Reproductive and/or Developmental Effects

For the component/components, either no data are currently available or the data are not sufficient for classification.

Target Organ(s)

Specific Target Organ Toxicity - single exposure

For the component/components, either no data are currently available or the data are not sufficient for classification.

Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

SECTION 12: ECOLOGICAL INFORMATION

Eco toxicological information

Please contact the address or phone number listed on the first page of the SDS for additional Eco toxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: DISPOSAL CONSIDERATION

13.1. Waste treatment methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: TRANSPORT INFORMATION

Transport only in accordance with ADR for road haulage, RID for rail transportation, ADNR/IMDG for carriage by vessel/sea and IATA for carriage by air.

| | | |
|--------------|------------------|-------------|
| Road traffic | Barge traffic | Air traffic |
| - ADR - | - ADNR - | - IATA - |
| Rail traffic | Maritime traffic | |

| | - RID - | - IMDG - | |
|--------------------------------------------------------------------------------------------------------|------------------------|------------------------|------------------------|
| 14.1. UN number | No hazardous materials | No hazardous materials | No hazardous materials |
| 14.2. UN proper shipping name | No hazardous materials | No hazardous materials | No hazardous materials |
| 14.3. Transport hazard class(es) | No hazardous materials | No hazardous materials | No hazardous materials |
| 14.4. Packing group | No hazardous materials | No hazardous materials | No hazardous materials |
| 14.5. Environmental hazards | No hazardous materials | No hazardous materials | No hazardous materials |
| 14.6. Special precautions for user → Chapters 6 to 8. | | | |
| 14.7. Transport in bulk according to Annex II of MARPOL73/8 and the IBC Code Not applicable. | | | |

SECTION 15: REGULATORY INFORMATION

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

Labelling:

According to EC Directives 67/548/EEC and 1999/45/EC: None.
According to Regulation EC/1272/2008: None.

International regulations:

Regulation (EC) 1907/2006
Regulation (EC) 1272/2008
Regulation (EU) 453/2010
Directive 94/62/EC
Directive 2008/98/EC
Directive 2011/65/EU
Directive 2012/19/EU

- respectively in the latest version incl. all amendment and corrections.

National regulations:

Compliance with applicable agreements, regulations and laws of the respective country.

Classification according to GefStoffV. (BRD): No.
Technical Instruction Air (TA_{Lufft}): Not classified.
Information on employment restrictions: None.

International listing:

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Japan Industrial Safety and Health Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the chemical notification requirements of TSCA.

SECTION 16: OTHER INFORMATION

Further information:

The information is based on our present knowledge, it is correct and complete. However, this information is given without a guarantee. It remains the responsibility of the user to satisfy itself whether the information is appropriate and complete for his special use of the product.