



# MATERIAL SAFETY DATA SHEET

## DuraPro ASA

### 1. PRODUCT IDENTIFICATION

|                |   |
|----------------|---|
| TRADE NAME     | Extrudr DuraPro ASA   |
| MANUFACTURER   | FD3D GmbH<br>Klosterstrasse 13<br>6923 Lauterach<br>AUSTRIA<br><br>info@extrudr.com |
| USE OF PRODUCT | Acrylnitril-Styrol-Acrylester-Copolymer compund, suitable for 3D printing filament  |

### 2. HAZARD IDENTIFICATION

|                           |  |
|---------------------------|--|
| CLASSIFICATION            | Not applicable   |
| LABEL ELEMENTS            | Not applicable   |
| SPECIAL ADVICE ON HAZARDS | Danger of burns in contact with hot polymer. Hazardous vapours in case of burning. |

### 3. COMPOSITION

|                          |   |
|--------------------------|---|
| CHEMICAL CHARACTERISTICS | 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile |
| ADDITIONAL INFORMATION   | typical stabilizers and lubricants  |

### 4. FIRST-AID MEASURES

|                  |  |
|------------------|--|
| ON SKIN CONTACT  | In case of contact with molten polymer immediately cool the skin with cold water. Medical aid may be required to remove adhering material and for treatment of burns.  |
| AFTER INHALATION | Dust may cause irritation to respiratory. In case of inhaling fumes released from heated material may cause respiratory irritation. In case of inhaling dense smoke, immediately remove a person to fresh air. If necessary, apply artificial respiration and seek medical attention immediately |
| ON INGESTION     | No effects known. Rinse mouth with water and drink more water. Contact a doctor in case of discomfort.   |
| ON EYES CONTACT  | Solid or dust may cause irritation or corneal injury due to mechanical action. Immediately flush eyes with plenty of water for at least 15minutes and call a doctor.   |

## 5. FIRE-FIGHT MEASURES

|                              |  |
|------------------------------|--|
| FIRE EXTINGUISHING MEDIA     | Water, dry chemical extinguisher, foam, carbon dioxide.  |
| SPECIAL EXPOSURE HAZARDS     | During incomplete combustion release of carbon dioxide, carbon monoxide, hydrogen cyanide and a variety of chemical substances |
| SPECIAL PROTECTIVE EQUIPMENT | Self-contained breathing apparatus.  |
| REMARK                       | Accumulations of dust can be inflammable.  |

## 6. ACCIDENTIAL RELEASE MEASURES

|                      |  |
|----------------------|--|
| PERSONAL PRECAUTIONS | Use suitable protective clothing. Avoid eye contact and inhalation of dusts. Keep ignition sources away. Pellets or beads may present a slipping hazard. |
| METHODS FOR CLEANING | Sweep up material and place in a container. Avoid ingress of material into drainage systems. Avoid raising dust and ensure adequate ventilation.         |

## 7. HANDLING AND STORAGE

|          |   |
|----------|---|
| HANDLING | Avoid contact with molten polymer. Avoid generation of dust and electrostatic charge.                                       |
| STORAGE  | Protect against moisture and UV radiation. Store cool and keep packaging closed when not in use. Avoid sources of ignition. |

## 8. PERSONAL PROTECTION

|                           |  |
|---------------------------|--|
| TECHNICAL SAFETY MEASURES | With suitable ventilation the threshold limits assumably will not be reached. Avoid electrostatic charge by use of grounding cables.                               |
| PERSONAL SAFETY EQUIPMENT | Use adequate safety equipment, e.g. protective clothing, eye protection glasses, heat protection gloves. In case of dust formation wear mask with particle filter. |
| WORK HYGIENE              | No eating or drinking during working. Avoid contact of hotmaterial with the skin. Avoid breathing dust and vapours.  |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                      |                               |
|----------------------|-------------------------------|
| FORM                 | Filament                      |
| COLOR                | colored                       |
| MELTING RANGE        | 180-200°C                     |
| OXIDISING PROPERTIES | not self igniting / flammable |
| DENSITY              | 1.07g/cm <sup>3</sup>         |

## 10. STABILITY AND REACTIVITY

|                                  |   |
|----------------------------------|---|
| STABILITY                        | The product is stable at recommended storage conditions.  |
| SUBSTANCES TO BE AVOIDED         | Strong oxidizing agents.  |
| CONDITIONS TO BE AVOIDED         | Accumulation of electrostatic charges, heating, flames and hot surfaces.<br>Avoid contact with incompatible materials/substances. |
| HAZARDOUS DECOMPOSITION PRODUCTS | Carbon monoxide, carbon dioxide, aldehydes, acetic acid, tetrahydrofurane,<br>low molecular weight oligomers.                     |

## 11. TOXICOLOGICAL INFORMATION

|                  |  |
|------------------|--|
| LOCAL IRRITATION | Dust can cause irritation of eyes, respiratory organs and skin. After ingestion stomach pain or nausea are possible.                           |
| OTHER REMARKS    | Based on our state of knowledge and experience no injurious health effects are expected if product is properly handled for the designated use. |

## 12. ECOLOGICAL INFORMATION

|                        |               |
|------------------------|---------------|
| ECOTOXICAL EFFECTS     | not available |
| BIOLOGICAL DEGRADATION | not available |
| BIOACCUMULATION        | not available |

## 13. DISPOSAL CONSIDERATIONS

|                     |  |
|---------------------|--|
| PRODUCT             | Generation of waste should be minimised, check possibility for recycling. Waste product can be incinerated or dumped together with domestic waste in compliance with local authority requirements. |
| SPECIAL PRECAUTIONS | Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations.               |

## 14. TRANSPORT INFORMATION

|   |  |
|---|--|
| TRANSPORT REGULATIONS   | Not classified as hazardous under transport regulations ADR, ADNR, RID, ICAO/IATA, IMDG/GGVSee.  |
| SPECIAL PRECAUTIONS FOR USER RELATED TRANSPORT OR TRANSPORTATION MEASURES | Local transport follows in accordance with Dangerous goods Safety Management Law. Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.<br><br>EmS FIRE SCHEDULE : Not available<br>EmS SPILLAGE SCHEDULE : Not available |

## 15. REGULATORY INFORMATION

|                |  |
|----------------|--|
| EU REGULATIONS | This product does not require a hazard warning label in accordance with EC Directives. |
|----------------|--|

## 15. OTHER INFORMATION

The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.

This Safety Data Sheet was compiled with data and information from the following sources:  
KOSHA, NITE, ESIS, NLM, SIDS, IPCS