Material Safety Data Sheet
Polyester PET
Safety Data Sheet
Complies with: directive 91/155/EEC
ISO 11014-1: Safety data sheet for chemical products.

1. Product and company identification
   Product name: Arnite®
   Product code: A06 101
   Manufacturer: DSM Engineering Plastics
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               The Netherlands
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2. Composition/Information on ingredients
   This chemical product is a preparation
   Chemical nature: Polyester PET
   CAS number: 25038-59-9
   Components contributing to the hazard: Not relevant

3. Hazards identification
   Most Important hazards: Hazard warning not required
   Specific hazards: Vapour and fumes released at elevated
   processing temperatures may be irritant for the eyes, the nose, the throat and the respiratory tract
   and in case of overexposure may cause nausea and headache.

   The material is not classified as being a dangerous preparation according to the EEC-Directive 88/379 and the subsequent amendments. See also Section 15.

4. First-Aid measures
   Inhalation:
   When fumes of molten material have been inhaled:
   - Move person to fresh air as quickly as possible
   - rest in half upright position
   - loosen clothing
   - keep warm
   In case of respiratory problems move person to first aid station for medical treatment.

   Skin contact:
   Any molten material on the skin/bums should be cooled (off) as quickly as possible by means of cold water. Cover the wound with sterile cloth and move person to first aid station or hospital for medical treatment. Attention: never pull off the molten material from the wound.

   Eye contact:
   Any material entering the eye should be flushed out with copious volumes of water.
Ingestion:
No danger of toxicity, this material is biologically inactive (see also Section 11).

5. **Fire-fighting measures**
   Extinguishing media:
   - Water, water/foam, CO₂, ABC fire extinguisher powder.

Specific Hazards:
- Treat the material as a solid that can burn. Moulded parts or solid granules generally burn slowly with flaming drips. In case of fire appreciable quantities of carbon monoxide are released in combination with irritating and/or toxic substances.

Protection for the fire-fighters:
- Do not approach fire in confined space without positive pressure self breathing apparatus and full bunker gear: bunker coats, helmet with face shield, gloves, rubberboots.

6. **Accidental release measures**
   **Personal precautions:**
   - Apply ample grounding with respect to dust explosion danger caused by released dust from granulate supply (filters): see section 7.
   - Protection of skin/eye/hand: see section 8.

   **Environmental precautions:**
   - Disposal considerations- see section 13.

   **Cleaning up methods:**
   - Shovel or sweep up, use especially industrial vacuum cleaner to suck possible fines/dust. Avoid generating dust clouds. Put into containers for reclaiming or disposal.

7. **Handling and storage**
   **Handling**
   Technical measures:
   - Make provisions for sufficient ventilation and local exhaust at vent, nozzle and ejected melt.
   Precautions:
   - Dust and processing fumes must be removed by effective exhaust ventilation.

   **Storage**
   Technical measures and storage conditions:
   - The material should be stored on a dry place.
   Incompatible products:
   - Stack pallets only two high when storing in order to prevent collapsing.

8. **Exposure controls/personal protection**
Control parameters:
Threshold Limit Value (TLV): a provisional TLV (TWA 8 hours) is advised in accordance with the TLV of non-toxic nuisance dust:
- - 10 mg/m³ for total dust.
- - 5 mg/m³ for respirable dust.

Personal protective equipment:
- - Respiratory protection: when TLV is accidentally exceeded see section 7 (prevention dust generation).
- - Hand protection when handling a hot melt, heat resistant gloves should be worn (e.g. when purging a processing machine).
- - Eye protection: when handling a hot melt, heat resistant face shields should be worn (e.g. when purging a processing machine).
- - Skin and body protection the use of apron, boots and/or full protective suit is not prescribed here; it is up to the decision of the processor.

Hygiene measures:
Adequate washing facilities, with supplies of mild soap and hand cleanser should be available at all working locations. Solvents should never be used as hand cleansers. Smoking, eating and drinking in working and storage area's should be prohibited.

9. Physical and chemical properties

| Physical state | solid, at 20°C. |
| Form | granulate. |
| Colour | natural opaque, dependent an added pigment. |

| Density | > 1.0 g/cm³. |
| Melting point/range | 255°C. |
| Odour | no special odour. |
| Solubility in water | insoluble. |
| Decomposition Temp. | > 300°C. |
| Flashpoint | > 355°C. |
| Auto Ignition Temp. | > 420°C. |

Dust Explosive Properties:
- Lower Explosion Limit (LEL) : < 10 g/m³.
- Minimum Ignition Temp. : 450°C.
- Dust Explosion Class (st) : 1

10. Stability and reactivity
Stability:
The material is chemically unreactive. Under certain conditions however hazardous reactions can take place.

Conditions to be avoided:
Temperatures >300°C and/or long residence times should be avoided since
thermal degradation occurs.

Materials to avoid:
- Strong oxidising agents.

Hazardous decomposition products:
- At processing temperatures some degree of thermal degradation will occur.
  Although highly dependent on temperature and environmental conditions, traces of a variety of toxic and/or irritating gases may be evolved.

11. **Toxicological Information**
   - Acute toxicity: None (LD$_{50}$ oral rat $>5000$ mg/kg)
   - Local effects: The material appears to be a non-toxic substance in standard toxicological and ecotoxicological tests and is regarded as biologically inactive.

12. **Ecological Information**
   - Persistence/degradability: very low UV degradability.
   - Ecotoxicity: no indication that this material is being a risk to the environment.
   - Aquatic toxicity: insoluble non toxic solid material (no water hazard).

13. **Disposal Considerations**
   - This material - as well as the packaging there of - presents no danger regarding toxicological and/or ecological considerations. It can be burnt in a controlled way or be disposed of via Landfill, or it can be recycled for - possibly less critical - non food applications.

   Note: Additional national or regional provisions may be in force within this matter.

14. **Transport Information**
   - General precautions: Keep this material dry during transport.
   - Special precautions: No special precautions have to be met.
   - This material is not classified according to the recommendations of the UN (B edition) on the transport of dangerous goods.

15. **Regulatory Information**
   - Labelling according to EEC directive 88/379/EEC and subsequent amendments is not required. Additional national legislation may be in force in this matter.

   EEC classification: No dangerous preparation.

   R(isk) phrases: N.a.
16. **Other Information**

None of the materials and/or products referenced herein should be used and/or applied in any product, device or material used or for use as human body implant or otherwise within the human body.

For information on material safety contact:

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