Safety Data Sheet

DSM

complies with: directive 2001/58/EC
ISO 11014-1:Safety data sheet for chemical products.

revision: 2.2
revision date: 10/02/2005
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1. Product and company identification

Product name: Stanyl®

Product code: TW341

Manufacturer:
DSM Engineering Plastics
P.O. Box 43,
6130 AA Sittard
The Netherlands

Emergency number: The Netherlands +31 (0)46 4 76 55 55

2. Composition/Information on ingredients

This chemical product is a preparation

Chemical nature: (poly)amide PA 46

CAS number: 50327-77-0

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 2001/58/EC 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/burns 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, CO_2, 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 and ammonia 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.

For safe polymer processing the material should have a water content <2%. In order to prevent a drop in material properties the water content during processing should be <0.1%.

Storage

Technical measures and storage conditions:

The material should be stored in 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/m^3 for total dust.
- 5 mg/m^3 for respirable dust.

Personal protective equipment:

- Respiratory protection: when TLV is accidentally exceeded see section 7 (prevention of 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 on added pigment.
Density	: > 1.0 g/cm^3.
Melting point/range	: 295°C.
Softening range	
Odour	: no special odour.
Solubility in water	: insoluble.
Decomposition Temp.	: > 350°C.
Flashpoint	: > 375°C.
Auto Ignition Temp.	: > 420°C.
Dust Explosive Properties:	
Lower Explosion Limit (LEL)	: < 10 g/m^3.
Minimum Ignition Temp.	: 410°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 >340° C and/or long residence times should be avoided since thermal degradation occurs.

Materials to be avoided:

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, e.g. cyclopentanone, ammonia and organic nitrogen compounds such as diaminobutane, pyrrole and pyrroline.
Under normal processing conditions, the concentrations are extremely low and with the health and safety information available these species are not considered to impose any hazard at the concentration level found.

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 thereof - 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 (8. 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.

Polyamide 46 is TSCA registered under number 50327-77-0

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.

* represents changes made to the document since the last revision date of the document.

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