

Safety Data Sheet

Ultramid® B27 E 01

Revision date : 2012/03/23

Version: 2.0

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(30249613/SDS_GEN_US/EN)

1. Product and Company Identification

Company

BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

Chemical family:

polyamide

Synonyms:

Nylon 6

2. Hazards Identification

Emergency overview**CAUTION:**

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

INGESTION MAY CAUSE GASTRIC DISTURBANCES.

Use with local exhaust ventilation.

Wear a NIOSH-certified (or equivalent) particulate respirator.

Wear protective clothing.

Eye wash fountains and safety showers must be easily accessible.

State of matter: solid

Colour: colourless

Odour: odourless

Potential health effects**Primary routes of exposure:**

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Contact with molten product may cause thermal burns. The resin in pelleted form poses a low hazard.

Irritation / corrosion:

Thermal decomposition products of the substance can irritate the eyes, skin, and respiratory tract.

Sensitization:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Chronic toxicity:

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Genotoxicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Medical conditions aggravated by overexposure:

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See MSDS section 11 - Toxicological information.

Signs and symptoms of overexposure:

No significant reaction of the human body to the product known.

Potential environmental effects

Aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from the structure of the product.

Degradation / environmental fate:

Experience shows this product to be inert and non-degradable.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
25038-54-4	> 98.0 %	polyamide (PA 6)
105-60-2	>= 0.1 - < 1.0 %	caprolactam

4. First-Aid Measures

General advice:

Remove contaminated clothing.

If inhaled:

Assist in breathing if necessary. Keep patient calm, remove to fresh air. Consult a physician.

If on skin:

Burns caused by molten material require hospital treatment. Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

5. Fire-Fighting Measures

Autoignition:	> 400 °C	(ASTM D1929)
Lower explosion limit:		not applicable
Upper explosion limit:		not applicable
Flammability:	not highly flammable	
Self-ignition temperature:		not self-igniting

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Hazards during fire-fighting:

carbon monoxide, hydrogen cyanide, can be emitted at > 300 °C

Under special fire conditions traces of other toxic substances are possible. Formation of further decomposition and oxidation products depends upon the fire conditions.



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Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Environmental precautions:

This product is not regulated by RCRA. This product is not regulated by CERCLA ('Superfund').

Cleanup:

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Pick up with suitable appliance and dispose of.

Further information:

High risk of slipping due to leakage/spillage of product.

7. Handling and Storage

Handling

Protection against fire and explosion:

Take precautionary measures against static discharges.

Storage

Storage stability:

Protect against moisture.

8. Exposure Controls and Personal Protection

Components with workplace control parameters

caprolactam

ACGIH TWA value 5 mg/m3 Inhalable fraction and vapor ;

Advice on system design:

Provide local exhaust ventilation to control dusts/vapours.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) particulate respirator. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:

Wear gloves to prevent contact during mechanical processing and/or hot melt conditions.

Eye protection:

Safety glasses with side-shields.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Wear protective clothing to prevent contact during mechanical processing and/or hot melt conditions. Avoid inhalation of dust. Wash soiled clothing immediately.



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9. Physical and Chemical Properties

Form:	pellets	
Odour:	odourless	
Colour:	colourless	
pH value:		not soluble
Melting temperature:	approx. 220 °C	(DIN 53765)
onset of boiling:		not applicable
Vapour pressure:		not applicable
Density:	1.12 - 1.15 g/cm3	(20 °C)
Relative density:		No data available.
Bulk density:	640 - 740 kg/m3	
Vapour density:		not applicable, The product is a non-volatile solid.
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Viscosity, dynamic:		not applicable
Solubility in water:		insoluble

10. Stability and Reactivity

Conditions to avoid:

Temperature: > 300 degrees Celsius
Avoid prolonged exposure to extreme heat.

Substances to avoid:

No substances known that should be avoided.

Hazardous reactions:

No hazardous reactions known.

Decomposition products:

Hazardous decomposition products: carbon monoxide, hydrogen cyanide, caprolactam
Thermal decomposition products: caprolactam, The substances/groups of substances mentioned may be released during processing.

Thermal decomposition:

> 300 °C
May decompose if overheated and/or subjected to prolonged heating.

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

not fire-propagating

11. Toxicological information

Acute toxicity

Information on: caprolactam

Assessment of acute toxicity:

Of moderate toxicity after single ingestion. Of moderate toxicity after short-term inhalation. Of low toxicity after short-term skin contact.

Repeated dose toxicity

Information on: Caprolactam



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*Assessment of repeated dose toxicity:
May affect the liver and kidneys as indicated in animal studies.*

Carcinogenicity

*Information on: caprolactam
In long-term animal studies in which the substance was given in high concentrations by feed, a carcinogenic effect was not observed.*

Aspiration Hazard:

not applicable

Other Information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

12. Ecological Information

Bioaccumulation

The product will not be readily bioavailable due to its consistency and insolubility in water.
Due to the consistency of the product, dispersion into the environment is impossible. Therefore no negative effects on the environment may be anticipated based on the present state of knowledge.

13. Disposal considerations

Waste disposal of substance:

Check for possible recycling. Dispose of in accordance with national, state and local regulations.

Container disposal:

Dispose of in accordance with national, state and local regulations. Packs must be completely emptied.
Completely emptied packagings can be given for recycling.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations



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15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories):

Not hazardous;

State regulations

State RTK

MA, NJ, PA

CAS Number

105-60-2

Chemical name

caprolactam

16. Other Information

Recommended use: Polymer for industrial processing only

Suitable for use in industrial sector: Polymers industry;

NFPA Hazard codes:

Health : 1

Fire: 1

Reactivity: 0

Special:

HMIS III rating

Health: 1

Flammability: 1

Physical hazard: 0

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

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MSDS Prepared by:

BASF NA Product Regulations

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MSDS Prepared on: 2012/03/23

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