

Safety Data Sheet

ULTRAFORM® N 2320 C BK120 Q600 POLYACETAL

Revision date : 2010/04/15

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Version: 4.1

(30246442/SDS_GEN_US/EN)

1. Product and Company Identification

Use: Polymer

CompanyBASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932, USA24 Hour Emergency Response InformationCHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

Chemical family:

Compound based on: polyoxymethylene copolymerizate (POM) Contains nanoparticles, additives

2. Hazards Identification

Emergency overview

CAUTION:

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

CAN CAUSE THERMAL BURNS.

HEATING DURING PROCESSING OF PRODUCT MAY RESULT IN RELEASE OF THE DECOMPOSITION PRODUCT FORMALDEHYDE.

MAY EMIT FORMALDEHYDE WHICH CAN CAUSE CANCER.

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

Wear NIOSH-certified chemical goggles.

Eye wash fountains must be easily accessible.

State of matter: solid

Colour: various, depending on the colourant

Odour: product specific

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:

The substance is inert.

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Chronic toxicity:

Genotoxicity: The substance is inert.

Potential environmental effects

Aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Degradation / environmental fate:

The product is virtually insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plants.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
24969-26-4	> 90.0 - < 100.0 % < 5.0 %	polyoxymethylene copolymerizate (POM) Carbon Nanotubes

4. First-Aid Measures

If inhaled:

If formaldehyde vapour is inhaled, remove person to fresh air and keep warm, if necessary summon physician. Inhale corticosteroid dose aerosol.

If on skin:

Burns caused by molten material require hospital treatment.

5. Fire-Fighting Measures

Flash point:	320 - 340 °C	(ASTM D1929)
Autoignition:	320 - 340 °C	(ASTM D1929)
Self-ignition temperature:		not self-igniting

Suitable extinguishing media:

water, foam, dry extinguishing media

Hazards during fire-fighting:

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

Protective equipment for fire-fighting:

Wear a self-contained breathing apparatus.

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').

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Cleanup:

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up.

Further information:

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

7. Handling and Storage

Handling

General advice:

Provide suitable exhaust ventilation at the processing machines. Avoid inhalation of dusts/mists/vapours.

Protection against fire and explosion:

Containers should be grounded against electrostatic charge.

8. Exposure Controls and Personal Protection

Components with workplace control parameters

Formaldehyde	OSHA	TWA value 0.75 ppm ; STEL value 2 ppm ; OSHA Action level 0.5 ppm ;
	ACGIH	CLV 0.3 ppm ;

Personal protective equipment

Respiratory protection:

Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. Wear a NIOSH Certified (or equivalent) 21C air purifying respirator equipped with an N100 or P100 rated filter, when particulates are generated.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Safety glasses with side-shields.

General safety and hygiene measures:

Avoid inhalation of vapour.

9. Physical and Chemical Properties

Form:	pellets	
Odour:	product specific	
Colour:	various, depending on the colourant	
pH value:		not applicable
melting range:	160 - 175 °C	(DIN EN ISO 3146)
Boiling range:		The substance / product decomposes therefore not determined.
Vapour pressure:		not applicable
Density:	1.4 g/cm ³	(20 °C) (DIN 53479)
Bulk density:	850 kg/m ³	
Solubility in water:		insoluble

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10. Stability and Reactivity

Substances to avoid:

inorganic acids, organic acids

Hazardous reactions:

Do not process with PVC or other plastics containing halogenated flame retardants.

Decomposition products:

Possible decomposition products: carbon monoxide, Formaldehyde

Thermal decomposition:

> 240 °C

To avoid thermal decomposition, do not overheat. May decompose violently. Gaseous products of degradation can be given off if the product is greatly overheated.

11. Toxicological information

Acute toxicity

Inhalation:

Information on: Formaldehyde

Type of value: LC50

Species: rat

Value: 0.578 mg/l

Exposure time: 4 h

Dermal:

Information on: Formaldehyde

Type of value: LD50

Species: rabbit

Value: approx. 270 mg/kg

Repeated dose toxicity

Information on: Formaldehyde

Assessment of repeated dose toxicity:

The International Agency for Research on Cancer (IARC) has classified formaldehyde as a Group 1 (known) human carcinogen based on epidemiological evidence linking formaldehyde exposure to occurrence of nasopharyngeal cancer. NTP listed carcinogen The use of products that contain or liberate formaldehyde is regulated under the OSHA Formaldehyde Standard (see 29 CFR 1910.1048).

Information on: Carbon Nanotubes

Assessment of repeated dose toxicity:

The substance may cause damage to the lung even after repeated inhalation of low doses, as shown in animal studies.

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

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Bioaccumulation

The product will not be readily bioavailable due to its consistency and insolubility in water.

13. Disposal considerations

Waste disposal of substance:

Check for possible recycling. May be disposed of or combusted with domestic refuse according to local regulations.

Container disposal:

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

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories):

Not hazardous;

16. Other Information

HMIS III rating

Health: 3 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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We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by:

BASF NA Product Regulations

msds@basf.com

MSDS Prepared on: 2010/04/15

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