

# Safety Data Sheet

## ULTRAFORM® N2640 Z4 UNCOLORED Q600 POLYACETAL

Revision date : 2010/04/27

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Version: 1.0

(30192055/SDS\_GEN\_US/EN)

### 1. Product and Company Identification

Use: Polymer

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:

acetals, copolymer

Synonyms:

POLYOXYMETHYLENE COPOLYMER

### 2. Hazards Identification

Emergency overview

## CAUTION:

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

MAY CAUSE RESPIRATORY SENSITIZATION (OSHA 29 CFR 1910.1048)

UNDER HOT MELT PROCESSING CONDITIONS, WEAR PERSONAL PROTECTIVE EQUIPMENT TO PREVENT THERMAL BURNS.

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

MAY EMIT FORMALDEHYDE WHICH CAN CAUSE CANCER.

State of matter: solid

Colour: opaque

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:**

Irritation is possible when the product comes in contact with the skin, respiratory tract or the eyes.

**Sensitization:**

The substance is inert.



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### Chronic toxicity:

**Repeated dose toxicity:** No adverse effects have been reported in the processing and use of the product. No known chronic effects.

**Genotoxicity:** The substance is inert.

### Medical conditions aggravated by overexposure:

The use of products that contain or liberate formaldehyde is regulated under the OSHA Formaldehyde Standard (see 29 CFR 1910.1048).

### Potential environmental effects

#### Aquatic toxicity:

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

#### 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>
24969-26-4	> 70.0 - < 90.0 %	polyoxymethylene copolymerizate (POM)
26375-23-5	> 10.0 - < 30.0 %	Hexanedioic acid, polymer with 1,4-butanediol and 1,1'-methylenebis[4-isocyanatobenzene]

## 4. First-Aid Measures

### General advice:

Burns caused by molten material require hospital treatment.

### If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

### If on skin:

If contacted with decomposition products wash affected areas with soap and water. If irritation develops, seek medical attention.

### If in eyes:

In case decomposition products come into contact with the eyes, immediately flush with running water for at least 15 minutes. If irritation develops, seek immediate medical attention.

### If swallowed:

Ingestion is not likely in the available physical form. If ingested, seek medical attention.

## 5. Fire-Fighting Measures

Flash point: 320 - 340 °C

Autoignition:

No data available.

Self-ignition temperature:

not self-igniting

### Suitable extinguishing media:

water fog, foam, dry extinguishing media



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### Hazards during fire-fighting:

isocyanate

Substance/product is dangerous when exposed to heat or flames. Under special fire conditions traces of other toxic substances are possible.

Formaldehyde,

### Protective equipment for fire-fighting:

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

## 6. Accidental release measures

### Environmental precautions:

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

### Cleanup:

Reclaim for processing if possible. Sweep/shovel up. Place into suitable containers for reuse or disposal in a licensed facility.

### Further information:

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

## 7. Handling and Storage

### Handling

#### General advice:

Avoid inhalation of dusts/mists/vapours. Provide appropriate exhaust ventilation at machinery.

#### Protection against fire and explosion:

No explosion proofing necessary. Ground conductive equipment properly to prevent electrostatic discharge. Dust can form an explosive mixture with air. Explosiveness of fine dusts increases with decreasing particle size. Avoid dust formation.

### Storage

#### General advice:

Avoid extreme heat. Avoid deposition of dust.

#### Storage stability:

Protect against moisture.

## 8. Exposure Controls and Personal Protection

### Components with workplace control parameters

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

### Advice on system design:

Provide exhaust ventilation at sources when processing molten product.

### Personal protective equipment

#### Respiratory protection:

Wear a NIOSH-certified organic vapour cartridge respirator when handling molten materials. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination.



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**Hand protection:**

Chemical resistant protective gloves

**Eye protection:**

Safety glasses with side-shields.

**General safety and hygiene measures:**

Wear protective clothing as necessary to prevent contact.

### 9. Physical and Chemical Properties

Form:	pellets	
Odour:	odourless	
Colour:	opaque	
pH value:		not soluble
melting range:	160 - 175 °C	(DIN EN ISO 3146)
Boiling range:		The substance / product decomposes therefore not determined.
Vapour pressure:		not applicable
Relative density:	1.35 - 1.45	
Bulk density:	850 kg/m3	
Solubility in water:		insoluble

### 10. Stability and Reactivity

**Conditions to avoid:**

Avoid extreme heat.

**Substances to avoid:**

plastics containing halogenated flame retardants, strong oxidizing agents, inorganic acids  
polyvinylchloride

**Hazardous reactions:**

The product is chemically stable.

**Decomposition products:**

Hazardous decomposition products: isocyanates  
Formaldehyde, carbon monoxide

**Thermal decomposition:**

> 240 °C

**Corrosion to metals:**

No corrosive effect on metal.

### 11. Toxicological information

**Acute toxicity**

*Information on: Formaldehyde*

*Assessment of acute toxicity:*

*Of high toxicity after short-term inhalation. Of high toxicity after short-term skin contact. Of high toxicity after single ingestion.*

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**Inhalation:**

*Information on: Formaldehyde*



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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

### Sensitization:

Information on: Formaldehyde

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Result: sensitizing

Guinea pig maximization test

Species: guinea pig

Result: sensitizing

Method: OECD Guideline 406

### 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).

### 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

### Aquatic toxicity

Information on: Formaldehyde

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms. Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible.

Information on: Glass, oxide, chemicals

Assessment of 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. No toxic effects occur within the range of solubility.

## 13. Disposal considerations

### Waste disposal of substance:

Incinerate in a licensed facility. Do not discharge substance/product into sewer system.



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### Container disposal:

Dispose of in accordance with national, state and local regulations.

## 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: 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.

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



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