

Safety Data Sheet

ULTRAFORM® N2320 C BLACK 110

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(30563142/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

ULTRAFORM® N2320 C BLACK 110

Recommended use of the chemical and restriction on use

Recommended use*: Polymer; for industrial processing only

Suitable for use in industrial sector: Polymers industry

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION

100 Park Avenue

Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: polyoxymethylene copolymerizate (POM)

Synonyms: Polyoxymethylene copolymer; POM

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

The product does not require a hazard warning label in accordance with GHS criteria.

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Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered. Proper handling and processing provided a release of the used carbon nanotubes is not known.

Labeling of special preparations (GHS):

Contains formaldehyde. May cause cancer. This product is capable of releasing formaldehyde into the air. HEATING DURING PROCESSING OF PRODUCT MAY RESULT IN RELEASE OF THE DECOMPOSITION PRODUCT FORMALDEHYDE. UNDER HOT MELT PROCESSING CONDITIONS, WEAR PERSONAL PROTECTIVE EQUIPMENT TO PREVENT THERMAL BURNS.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
50-00-0	>= 0.0 - < 0.1%	Formaldehyde

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

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.

If in eyes:

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

If swallowed:

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

Most important symptoms and effects, both acute and delayed

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

Hazards: No hazard is expected under intended use and appropriate handling.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat symptomatically.

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5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, foam, dry powder

Special hazards arising from the substance or mixture

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.

Advice for fire-fighters

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

Further accidental release measures:

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

Personal precautions, protective equipment and emergency procedures

No special precautions necessary.

Environmental precautions

No special precautions necessary.

Methods and material for containment and cleaning up

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up.

7. Handling and Storage

Precautions for safe handling

Avoid aerosol formation. Avoid raising dust. Avoid inhalation of dusts. Provide suitable exhaust ventilation at the processing machines.

Protection against fire and explosion:

Containers should be grounded against electrostatic charge.

Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Low density polyethylene (LDPE), High density polyethylene (HDPE), Carbon steel (Iron)

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

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Formaldehyde	OSHA PEL	TWA value 0.75 ppm ; STEL value 2 ppm ; STEL value 2 ppm ; OSHA Action level 0.5 ppm ; TWA value 0.75 ppm ;
	ACGIH TLV	CLV 0.3 ppm ; STEL value 0.3 ppm ; TWA value 0.1 ppm ;

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) 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 depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Avoid inhalation of vapour. After use of gloves apply skin-cleaning agents and skin cosmetics.

9. Physical and Chemical Properties

Form:	pellets	
Odour:	product specific	
Odour threshold:	not applicable	
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.	
Sublimation point:	No applicable information available.	
Flash point:	320 - 340 °C	(ASTM D1929)
Flammability:	not self-igniting	
Flammability of Aerosol Products:	not applicable, the product does not form flammable aerosoles	
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
Autoignition:	320 - 340 °C	(ASTM D1929)
Vapour pressure:	not applicable	
Density:	1.4 g/cm ³ (20 °C)	(DIN 53479)
Relative density:	Study does not need to be conducted.	
Bulk density:	850 kg/m ³	
Vapour density:	not applicable	
Partitioning coefficient n- octanol/water (log Pow):	not applicable	

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Self-ignition temperature:	not self-igniting
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.
Viscosity, kinematic:	not applicable, the product is a solid
Particle size:	10 µm (measured) product contains nanoparticles embedded /suspended in a solid/liquid matrix
Solubility in water:	insoluble
Evaporation rate:	The product is a non-volatile solid.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:

not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

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

Conditions to avoid

Temperature: > 240 degrees Celsius

Avoid UV-light and other radiation with high energy.

Incompatible materials

inorganic acids, organic acids

Hazardous decomposition products

Decomposition products:

Possible decomposition products: carbon monoxide, Formaldehyde, carbon dioxide, Water

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

Primary routes of exposure

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

Acute Toxicity/Effects

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Acute toxicity

Assessment of acute toxicity: Contact with molten product may cause thermal burns. The resin in pelleted form poses a low hazard.

Information on: Formaldehyde

Assessment of acute toxicity: Of high toxicity after short-term inhalation. Of high toxicity after single ingestion. Of pronounced toxicity after short-term skin contact.

Oral

Type of value: ATE

Value: > 5,000 mg/kg

Inhalation

The inhalation of fumes represents a severe acute hazard. Irritating to respiratory system.

Information on: Formaldehyde

Type of value: LC50

Species: rat

Value: (OECD Guideline 403)

Exposure time: 4 h

The vapour was tested.

Dermal

Type of value: ATE

Value: > 5,000 mg/kg

Irritation / corrosion

Assessment of irritating effects: Thermal decomposition products of the substance can irritate the eyes, skin, and respiratory tract.

Information on: Formaldehyde

Assessment of irritating effects: Corrosive! Damages skin and eyes. Depending on the concentration and duration of exposure, aqueous solutions can cause a strongly irritating or corrosive effect on the skin or eyes.

Sensitization

Assessment of 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.

Information on: Formaldehyde

Assessment of sensitization:

Caused skin sensitization in animal studies. Caused sensitization in humans.

OSHA (Occupational Safety and Health Administration) has classified this substance as a skin sensitizer. OSHA (Occupational Safety and Health Administration) has classified this substance as a respiratory sensitizer.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Genetic toxicity

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

Carcinogenicity

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

Information on: Formaldehyde

Assessment of carcinogenicity: NTP listed carcinogen 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 and leukemia. Current regulatory information is provided in this MSDS. No adverse health effects are anticipated if recommended personal protective equipment and industrial hygiene practices are used.

Symptoms of Exposure

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

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of 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.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

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

Bioaccumulative potential

Bioaccumulation potential

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

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. Incineration in suitable plants is recommended.

Container disposal:

Packs must be completely emptied. Completely emptied packagings can be given for recycling.

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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): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

State RTK

PA

CAS Number

50-00-0

Chemical name

Formaldehyde

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including FORMALDEHYDE (GAS), which is known to the State of California to cause cancer, and METHANOL, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:

Health: 3

Fire: 1

Reactivity: 0

Special:

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2018/06/21

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

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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.

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