

## Safety Data Sheet

# ULTRADUR® B4441 G5 UNCOLORED POLYBUTYLENE TEREPHTHALATE

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### 1. Identification

**Product identifier used on the label**

## ULTRADUR® B4441 G5 UNCOLORED POLYBUTYLENE TEREPHTHALATE

**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 US 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**

Synonyms: polybutylene terephthalate

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### 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**

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

### Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

**According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

### 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 NIOSH-certified chemical goggles.

Wear protective clothing.

Eye wash fountains and safety showers must be easily accessible.

## 3. Composition / Information on Ingredients

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

This product does not contain any components classified as hazardous under the referenced regulation.

**According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
30965-26-5	>= 20.0 - <= 40.0 %	polybutylene terephthalate (PBT)
26062-94-2	>= 20.0 - <= 40.0 %	polybutylene terephthalate (PBT)
65997-17-3	>= 15.0 - <= 30.0 %	Glass, oxide, chemicals
225789-38-8	>= 10.0 - <= 20.0 %	Phosphinic acid, diethyl-, aluminum salt
218768-84-4	>= 3.0 - <= 7.0 %	Polymer of substituted aromatic triamine and phosphorous compound

The product contains:

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
37640-57-6	>= 1.0 - < 3.0 %	1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with 1,3,5-triazine-2,4,6-triamine (1:1)

## 4. First-Aid Measures

### Description of first aid measures

#### General advice:

Avoid contact with the skin, eyes and clothing. Remove contaminated clothing.

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### **If inhaled:**

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Consult a physician.

### **If on skin:**

Wash thoroughly with soap and water. Burns caused by molten material require hospital treatment.

### **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.

### **If swallowed:**

Rinse mouth and then drink plenty of water. Ingestion is not likely in the available physical form. If ingested, seek medical attention.

### **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:

Phosphine, hydrogen cyanide, carbon monoxide, tetrahydrofuran,

The substances/groups of substances mentioned can be released in case of fire. Formation of further decomposition and oxidation products depends upon the fire conditions.

### **Advice for fire-fighters**

Protective equipment for fire-fighting:

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

### **Further information:**

In case of combustion evolution of toxic gases/vapours possible. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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## 6. Accidental release measures

### Further accidental release measures:

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

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### 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

Sweep/shovel up. Avoid raising dust.

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## 7. Handling and Storage

### Precautions for safe handling

Avoid inhalation of dusts/mists/vapours. Exhaust ventilation at processing machines is required during thermal processing and/or machining.

Protection against fire and explosion:

Take precautionary measures against static discharges.

### Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Low density polyethylene (LDPE), High density polyethylene (HDPE), Stainless steel, aluminum

Further information on storage conditions: Keep container tightly closed. Avoid deposition of dust. Protect against moisture.

Storage stability:

Protect against moisture.

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## 8. Exposure Controls/Personal Protection

### Components with occupational exposure limits

Glass, oxide, chemicals

ACGIH TLV	TWA value 5 mg/m <sup>3</sup> Inhalable fraction ; TWA value 1 fibers/cm <sup>3</sup> Fiber ; Respirable fibers: length > 5 micrometers; aspect ratio $\geq$ 3:1, as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination.
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### 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.

#### Hand protection:

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

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### Eye protection:

Safety glasses with side-shields. Wear safety goggles (chemical goggles) if there is potential for airborne dust exposures.

### General safety and hygiene measures:

The product contains dangerous ingredients (see paragraph 2, SDS), which are embedded in plastic and are only set free when milled. Avoid inhalation of dusts/mists/vapours.

## 9. Physical and Chemical Properties

Form:	granules	
Odour:	odourless	
Odour threshold:		not applicable
Colour:	various, depending on	the colourant
pH value:		not applicable
melting range:	220 - 230 °C	(DIN 53736)
Boiling range:		The substance / product decomposes therefore not determined.
Sublimation point:		No applicable information available.
Flash point:		not applicable
Flammability:	not self-igniting	
Flammability of Aerosol Products:		not applicable, the product does not form flammable aerosols)
Lower explosion limit:		The substance / product decomposes therefore not determined.
Upper explosion limit:		The substance / product decomposes therefore not determined.
Autoignition:	> 350 °C	(ASTM D1929)
Vapour pressure:		not applicable
Density:	> 1 g/cm <sup>3</sup>	( 20 °C)
Relative density:		No data available.
Bulk density:	600 - 900 kg/m <sup>3</sup>	
Vapour density:		not applicable
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Self-ignition temperature:		not self-igniting
Thermal decomposition:	> 290 °C	Thermal decomposition above the indicated temperature is possible.
Viscosity, dynamic:		not applicable, the product is a solid
Viscosity, kinematic:		not applicable, the product is a solid
Solubility in water:		insoluble
Solubility (quantitative):		No applicable information available.
Evaporation rate:		The product is a non-volatile solid.

## 10. Stability and Reactivity

### Reactivity

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

### Chemical stability

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

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### Possibility of hazardous reactions

The product is chemically stable.  
No hazardous reactions known.

### Conditions to avoid

Temperature: > 290 degrees Celsius

### Incompatible materials

No substances known that should be avoided.

### Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: carbon monoxide, terephthalic acid, tetrahydrofuran, carbon dioxide, Water, hydrogen cyanide, Phosphine

Thermal decomposition:

> 290 °C

Thermal decomposition above the indicated temperature is possible.

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## 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

#### Acute toxicity

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

#### Oral

Type of value: ATE

Value: > 5,000 mg/kg

#### Inhalation

Not inhalable due to the physico-chemical properties of the product.

#### Dermal

No applicable information available.

#### Irritation / corrosion

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

#### 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.

#### Aspiration Hazard

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No aspiration hazard expected.

### Chronic Toxicity/Effects

#### Repeated dose toxicity

*Information on: 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with 1,3,5-triazine-2,4,6-triamine (1:1)*  
*Assessment of repeated dose toxicity: Damages the kidneys. Harmful: danger of serious damage to health by prolonged exposure if swallowed.*  
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#### Genetic toxicity

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.

#### 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.

### Symptoms of Exposure

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

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## 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 product has not been tested. The statement has been derived from the structure of the product.

### Persistence and degradability

#### Assessment biodegradation and elimination (H<sub>2</sub>O)

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

### Bioaccumulative potential

#### Bioaccumulation potential

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

### Additional information

Other ecotoxicological advice:

No (eco-)toxicological relevant migration of single components/contents takes place. The product is a polymeric compound.

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### 13. Disposal considerations

**Waste disposal of substance:**

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

**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

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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**

65997-17-3

**Chemical name**

Glass, oxide, chemicals

**NFPA Hazard codes:**

Health : 1 Fire: 1 Reactivity: 0 Special:

**HMIS III rating**

Health: 1 Flammability: 1 Physical hazard: 0

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### 16. Other Information

**SDS Prepared by:**

BASF NA Product Regulations



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