We create chemistry

Safety data sheet

1. Identification

Product identifier

ULTRADUR® B 4406 G6 BLACK 07110 POLYBUTYLENE TEREPHTHALATE

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Polymer
Recommended use: Polymer, for industrial processing only

Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY

Telephone: +49 621 60-0
E-mail address: global.info@basf.com

Emergency telephone number

International emergency number:
Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

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

Label elements

Globally Harmonized System (GHS)

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

Other hazards

According to UN GHS criteria

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

3. Composition/Information on Ingredients

Substances

Not applicable

Mixtures

Chemical nature

Compound based on: polybutylene terephthalate (PBT)

additives, fillers, flame retardant, Diantimony trioxide

Hazardous ingredients (GHS)
According to UN GHS criteria

Diantimony trioxide

Content (W/W): >= 1 % - <= 7 %	Carc. 2 (by inhalation)
CAS Number: 1309-64-4	STOT RE (Lung) 2
EC-Number: 215-175-0	Aquatic Acute 3
	H351, H373, H402

For the classifications not written out in full in this section the full text can be found in section 16.

4. First-Aid Measures

Description of first aid measures

Avoid contact with the skin, eyes and clothing.

If inhaled:
If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

On skin contact:
Burns caused by molten material require hospital treatment.

On contact with 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.

On ingestion:
Rinse mouth and then drink 200-300 ml of water. If difficulties occur: Seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: (Further) symptoms and / or effects are not known so far

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

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, foam, dry powder

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

At temperatures of > 290 °C can be emitted: Carbon monoxide, Tetrahydrofuran, hydrogen halides, brominated dibenzodioxins
Under special fire conditions traces of other toxic substances are possible. Formation of further decomposition and oxidation products depends upon the fire conditions.

Advice for fire-fighters

Special protective equipment:
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

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

Personal precautions, protective equipment and emergency procedures

No special precautions necessary.

Environmental precautions

Prevent releases of this product into the environment. Comprehensive instructions explaining how to prevent releases of plastics pellets, flakes, and powders to the environment during both use and disposal are provided by the industry program 'Operation Clean Sweep' (OCS).

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Pick up with suitable appliance and dispose of.
For residues: Sweep/shovel up.
Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Avoid dust formation.

Exhaust ventilation at processing machines is required during thermal processing and/or machining. However, if dust formulation occurs at processing / finishing processing steps like regranulation, mechanical machining (for example drilling, grinding etc.) provide suitable exhaust ventilation.

Cleaning of product-contaminated machine parts with open flames should be avoided. If task are carried out with open flames, ventilation measures are mandatory.

Protection against fire and explosion:
Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Suitable materials for containers: Low density polyethylene (LDPE), High density polyethylene (HDPE), Aluminium, Carbon steel (Iron)
Further information on storage conditions: Keep container tightly closed and dry; store in a cool place. Avoid dust formation, product dust can form an explosive mixture with air.

Storage stability:
Protect against moisture.

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

Control parameters

Components with occupational exposure limits

1309-64-4: Diantimony trioxide

The surveillance of the workplace by exposure measurements may be necessary, in order to prove the efficiency of safety measures, for example ventilation or the need of respiratory protection. Since this requires a specific competency, only accredited laboratories should be contracted. Regarding suitable methods to assess inhalation exposure, the European Standards EN 482, 689 and 14042 are to be considered. In addition, the TRGS 402 has to be observed in Germany.

Exposure controls

Personal protective equipment

Respiratory protection:
Breathing protection if breathable aerosols/dust are formed. Wear respiratory protection if ventilation is inadequate. (Particle filter EN 143 P3)

Hand protection:
Use additional heat protection gloves when handling hot molten masses (EN 407), e.g. of textile or leather.

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166)

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
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. When using, do not eat, drink or smoke. Keep separated from food stuffs and feed stocks. Hands and/or face should be washed before breaks and at the end of the shift. After use of gloves apply skin-cleaning agents and skin cosmetics.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State of matter:	solid
Form:	granules
Colour:	various, depending on the colourant
Odour:	odourless
Odour threshold:	
	not applicable

melting range:	220 - 230 °C (1.013 hPa)	(DIN 53736)
Boiling range:	The substance / product decomposes therefore not determined.	
Sublimation point:	No applicable information available.	
Flammability:	not self-igniting	(derived from flash point)
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.	
Flash point:	not applicable	
Auto-ignition temperature:	> 350 °C	(ASTM D1929)
Thermal decomposition:	> 290 °C (TGA) To avoid thermal decomposition, do not overheat.	
pH value:	not applicable	
Viscosity, kinematic:	not applicable, the product is a solid	
Viscosity, dynamic:	not applicable, the product is a solid	
Solubility in water:	insoluble (20 °C, 1.013 hPa)	(OECD Guideline 105)
Partitioning coefficient n-octanol/water (log Kow):	not applicable	
Vapour pressure:	not applicable	
Relative density:	Study does not need to be conducted.	
Density:	1,60 - 1,70 g/cm3 (20 °C, 1.013 hPa)	(EN ISO 1183-1)
Relative vapour density (air):	not applicable	
Particle characteristics		
Particle size distribution:	spheroidal -	
Specific Surface Area:	0,0 m²/g	(MSSA, ISO 9227)

9.2. Other information

Information with regard to physical hazard classes

Explosives		
Explosion hazard:	not explosive	
Oxidizing properties		
Fire promoting properties:	not fire-propagating	
Pyrophoric properties		
Self-ignition temperature:		Test type: Spontaneous self-ignition at room-temperature.

	not self-igniting	
Self-heating substances and mixtures		
Self heating ability:	It is not a substance capable of spontaneous heating according to UN transport regulations class 4.2.	(VDI 2263, sheet 1, 1.4.1 (May 1990))
Corrosion to metals		
	No corrosive effect on metal.	

Other safety characteristics

Bulk density:	600 - 900 kg/m3 (20 °C, 1.013 hPa)	(OECD Guideline 109)
Evaporation rate:	The product is a non-volatile solid.	

10. Stability and Reactivity

Reactivity

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

Corrosion to metals: No corrosive effect on metal.

Chemical stability

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

Possibility of hazardous reactions

No hazardous reactions known.
The product is chemically stable.

Conditions to avoid

Temperature: > 290 °C
See SDS section 7 - Handling and storage.

Incompatible materials

Substances to avoid:
No substances known that should be avoided.

Hazardous decomposition products

Hazardous decomposition products:
Carbon monoxide, Tetrahydrofuran, Terephthalic acid, Carbon dioxide, Water
Danger by forming of toxic pyrolytic products.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
Contact with molten product may cause thermal burns.

Irritation

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

Serious eye damage/irritation: May cause mechanical irritation.

Respiratory/Skin 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.

Germ cell mutagenicity

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. The ingredient of concern is tightly bound within the product (practically not bioavailable).

There is no formation of respirable dust during intended uses. However, if dust formation occurs at processing/finishing processing steps like regranulation, mechanical machining (for example drilling, grinding etc.), occupational protection regulations have to be considered. Release and inhalative resorption from respirable dust (fine dust), however, cannot be excluded. If dust is formed, the substances can be released, which caused cancer by inhalation in animal studies.

Information on: Diantimony trioxide
Assessment of carcinogenicity:
Indication of possible carcinogenic effect in animal tests. IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).

Reproductive toxicity

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

Developmental toxicity

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

Specific target organ toxicity (single exposure)

Assessment of STOT single:
not applicable

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
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

May be harmful if swallowed and enters airways.

Other relevant toxicity 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

Toxicity

Assessment of 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.

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

Elimination information:
Poorly biodegradable.

Assessment of stability in water:
According to structural properties, hydrolysis is not expected/probable.

Bioaccumulative potential

Assessment bioaccumulation potential:

Does not significantly accumulate in organisms.

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

Mobility in soil

Assessment transport between environmental compartments:
Adsorption in soil: Adsorption to solid soil phase is not expected.

Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

Other adverse effects

The product does not contain substances that are listed in Regulation (EU) 2024/590 on substances that deplete the ozone layer.

Additional information

Adsorbable organically-bound halogen (AOX):
The product contains according to the formulation, organically bound halogen. It can increase the AOX-value in the water purification plants overflow or if it reaches waters.

Other ecotoxicological advice:
The product is a polymeric compound.

13. Disposal Considerations

Waste treatment methods

Check for possible recycling.
Observe national and local legal requirements.
Dispose of as hazardous waste in compliance with national waste legislation requirements and local regulations.

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

14. Transport Information

Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Inland waterway transport

ADN

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	None known

Transport in inland waterway vessel
Not evaluated

Sea transport

IMDG

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Air transport

IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Not applicable

16. Other Information

Information on intended use: Do not mill or crush the product. Must not be used in spray form.

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Carc.	Carcinogenicity
STOT RE	Specific target organ toxicity — repeated exposure
Aquatic Acute	Hazardous to the aquatic environment - acute
H351	Suspected of causing cancer by inhalation.
H373	May cause damage to organs (Lung) through prolonged or repeated exposure.
H402	Harmful to aquatic life.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.