We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
ULTRADUR® B 4406 UNCOLORED POLYBUTYLENE TEREPHTHALATE

Use: Polymer

Recommended use: Polymer, for industrial processing only

Manufacturer/supplier:
BASF (Thai) Limited
23rd Floor, Emporium Tower, 622, Sukhumvit 24 Rd.,
Klongton, Klongtoey, Bangkok 10110, THAILAND
Telephone: +66 2624-1999
Telefax number: +66 2664-9254
E-mail address: Thailand-SDS-info@basf.com

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

2. Hazard identification

Classification according to UN GHS 2009

Classification of the substance and mixture:
No need for classification according to GHS criteria for this product.

Label elements and precautionary statement:

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

Other hazards which do not result in classification:

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

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

Compound based on:
polybutylene terephthalate (PBT), Polyethyleneterephthalate (PET)

additives, flame retardant
, diantimony trioxide

Hazardous ingredients

diantimony trioxide

Content (W/W): >= 1 % - <= 6 %	Carc.: Cat. 2 (by inhalation)
CAS Number: 1309-64-4	STOT RE (Lung): Cat. 2
	Aquatic Acute: Cat. 3

4. First-Aid Measures

General advice:
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.

Note to physician:
Symptoms: (Further) symptoms and / or effects are not known so far
Hazards: No hazard is expected under intended use and appropriate handling.
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
water spray, foam, dry powder

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
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.

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

Personal precautions:
No special precautions necessary.

Environmental precautions:
No special precautions necessary.

Methods for cleaning up or taking 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.
Sweep/shovel up. Avoid raising dust.

Additional information: High risk of slipping due to leakage/spillage of product.

7. Handling and Storage

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.

Storage

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.

8. Exposure controls and personal protection

Components with occupational exposure limits

diantimony trioxide, 1309-64-4;
TWA value 0.5 mg/m3 (OEL (TH))
Measured as: antimony (Sb)
TWA value 0.02 mg/m3 (ACGIHTLV), Inhalable fraction

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.

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

Form: granules

Colour:	various, depending on the colourant	
Odour:	odourless	
Odour threshold:	not applicable	
pH value:	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.	
Flash point:	not applicable	
Evaporation rate:	The product is a non-volatile solid.	
Flammability (solid/gas):	not self-igniting	(derived from flash point)
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
Ignition temperature:	> 350 °C	(ASTM D1929)
Thermal decomposition:	> 290 °C To avoid thermal decomposition, do not overheat.	(TGA)
Self ignition:	not self-igniting	Test type: Spontaneous self-ignition at room-temperature.
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))
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	not applicable	
Density:	1.40 - 1.50 g/cm3 (20 °C, 1,013 hPa)	(EN ISO 1183-1)
Relative density:	Study does not need to be conducted.	
Bulk density:	600 - 900 kg/m3 (20 °C, 1,013 hPa)	(DIN 53466)
Relative vapour density (air):	not applicable	

Solubility in water: insoluble
(20 °C, 1,013 hPa)
Partitioning coefficient n-octanol/water (log Pow):
not applicable

Viscosity, dynamic:
not applicable, the product is a solid
Viscosity, kinematic:
not applicable, the product is a solid

Particle characteristics

Particle size distribution: spheroidal -
Specific Surface Area: 0.0 m²/g (MSSA, ISO 9227)

10. Stability and Reactivity

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

Thermal decomposition: > 290 °C (TGA)
To avoid thermal decomposition, do not overheat.

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

Corrosion to metals: No corrosive effect on metal.

Hazardous reactions:
No hazardous reactions known.
The product is chemically stable.

Hazardous decomposition products:
carbon monoxide, tetrahydrofuran, carbon dioxide, terephthalic acid, water
Danger by forming of toxic pyrolytic products.

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

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

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Contact with molten product may cause thermal burns.

Symptoms

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

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.

Experimental/calculated data:
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)

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

Ecotoxicity

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.

Mobility

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

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.

Elimination information:
Poorly biodegradable.

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

Bioaccumulation 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.

Other adverse effects

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.

Additional information

Other ecotoxicological advice:
The product is a polymeric compound.

13. Disposal Considerations

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

14. Transport Information

Domestic transport:

	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

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 Marine pollutant: no
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
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

Other regulations

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

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.