

Safety data sheet

Page: 1/9

BASF Safety data sheet
Date / Revised: 03.10.2014
Product: **Tinuvin® 360**

Version: 1.0

(30477067/SDS_GEN_VN/EN)

Date of print 04.10.2014

1. Substance/preparation and manufacturer/supplier identification

Tinuvin® 360

Use: stabilizer

Manufacturer/supplier:

BASF Vietnam Co. Ltd.
12 Tu do Boulevard, Vietnam-Singapore IP
Thuan An, Binh Duong, VIETNAM
Telephone: +84 6503 743-100
Telefax number: +84 6503 743-200
E-mail address: nguyen.bui@basf.com

Emergency information:

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

2. Hazard identification

Classification of the substance and mixture:
Hazardous to the aquatic environment - chronic: Cat. 4

Label elements and precautionary statement:

Hazard Statement:
May cause long lasting harmful effects to aquatic life.

Precautionary Statements (Prevention):
Avoid release to the environment.

Precautionary Statements (Disposal):
Dispose of contents/container to hazardous or special waste collection point.

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Other hazards which do not result in classification:
The product is under certain conditions capable of dust explosion.

3. Composition/information on ingredients

Chemical nature

Phenol, 2,2'-methylenebis[6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-
CAS Number: 103597-45-1

Hazardous ingredients

Phenol, 2,2'-methylenebis[6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-
Content (W/W): 100 % Aquatic Chronic: Cat. 4
CAS Number: 103597-45-1

4. First-Aid Measures

General advice:
Remove contaminated clothing.

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

On skin contact:
Wash thoroughly with soap and water.

On contact with eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:
Rinse mouth and then drink plenty of water.

Note to physician:
Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.
Further important symptoms and effects are so far not known.
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
dry powder, foam

Unsuitable extinguishing media for safety reasons:
carbon dioxide

Additional information:

Avoid whirling up the material/product because of the danger of dust explosion.

Specific hazards:

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:

Avoid dust formation. Use personal protective clothing.

Environmental precautions:

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Contain with dust binding material and dispose of.

Avoid raising dust.

7. Handling and Storage

Handling

Breathing must be protected when large quantities are decanted without local exhaust ventilation.

Protection against fire and explosion:

Avoid dust formation. Take precautionary measures against static discharges.

Dust explosion class: Dust explosion class 3 (Kst-value >300 bar m s-1).

Storage

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

The packed product is not damaged by low temperatures or by frost.

The packed product will not be damaged by high temperatures.

8. Exposure controls and personal protection

Components with occupational exposure limits

No occupational exposure limits known.

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Chemical resistant protective gloves

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form: powder
Colour: slightly yellow
Odour: odourless
Odour threshold: No applicable information available.

pH value: not applicable

Melting point: > 195 °C (Directive 92/69/EEC, A.1)

Boiling point: not applicable

Flash point: not applicable, the product is a solid

Evaporation rate: The product is a non-volatile solid.

Flammability (solid/gas):	not highly flammable	(Directive 92/69/EEC, A.10)
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
Ignition temperature:	400 °C	(BAM)
Thermal decomposition:	> 350 °C	(dynamic (Lütolf oven))
Self ignition:	> 200 °C not self-igniting	(VDI 2263, sheet 1, 1.4.1) (Method: Directive 92/69/EEC, A.16)
Self heating ability:	It is not a substance capable of spontaneous heating.	
Minimum ignition energy:	No data available.	
Explosion hazard:	not explosive	(Directive 92/69/EEC, A.14)
Fire promoting properties:	not fire-propagating	(Directive 92/69/EEC, A.17)
Vapour pressure:	The product has not been tested.	
Density:	1.2 g/cm ³ (20 °C)	(Directive 92/69/EEC, A.3)
Bulk density:	approx. 360 kg/m ³	
Solubility in water:	< 0.007 mg/l (20 °C)	
Hygroscopy:	Non-hygroscopic	
Solubility (qualitative) solvent(s):	aromatic hydrocarbons, chlorinated hydrocarbons readily soluble	
Solubility (qualitative) solvent(s):	polar solvents, aliphatic hydrocarbons of low solubility	
Partitioning coefficient n-octanol/water (log Pow):	12.7	(OECD Guideline 117)
Viscosity, dynamic:	not determined	
Molar mass:	658.89 g/mol	

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Conditions to avoid:

Avoid dust formation. Avoid deposition of dust. Avoid all sources of ignition: heat, sparks, open flame. Avoid electro-static charge.

Thermal decomposition: > 350 °C (dynamic (Lütolf oven))

Thermal decomposition: > 200 °C (VDI 2263, sheet 1, 1.4.1)

Substances to avoid:
strong acids, strong bases, strong oxidizing agents

Corrosion to metals: No corrosive effect on metal.

Hazardous reactions:
Dust explosion hazard.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Experimental/calculated data:
LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 401)

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

Irritation

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:
Based on available Data, the classification criteria are not met.

Experimental/calculated data:
guinea pig: Non-sensitizing.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on the ingredients, there is no suspicion of a mutagenic effect.

Experimental/calculated data:
Ames-test
negative

Carcinogenicity

Assessment of carcinogenicity:

The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:

Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

Specific target organ toxicity (single exposure):

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

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

Experimental/calculated data:

Subacute toxicity

rat (OECD Guideline 407)

NOAEL: > 1000 mg/kg

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

May cause long-term adverse effects in the aquatic environment.

Toxicity to fish:

LC50 (96 h) > 12.7 mg/l, *Brachydanio rerio* (Directive 92/69/EEC, C.1)

No effects at the highest test concentration. Tested above maximum solubility.

Aquatic invertebrates:

EC50 (48 h) > 50.2 mg/l, *Daphnia magna* (Directive 92/69/EEC, C.2)

No effects at the highest test concentration. Limit concentration test only (LIMIT test).

Aquatic plants:

EC50 (72 h) > 2.0 mg/l, *Scenedesmus subspicatus* (OECD Guideline 201)

No effects at the highest test concentration. Tested above maximum solubility.

Microorganisms/Effect on activated sludge:

EC50 (3 h) > 100 mg/l, activated sludge (Directive 88/302/EEC, part C, p. 118)

No effects at the highest test concentration. Tested above maximum solubility.

Mobility

Assessment transport between environmental compartments:

The substance will not evaporate into the atmosphere from the water surface.

No data available.

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:

(28 d) (OECD Guideline 302 C) Not readily biodegradable (by OECD criteria).

Sum parameter

Chemical oxygen demand (COD): (Directive 84/449/EEC, C.9) 1,870 mg/g

Bioaccumulation potential

Bioaccumulation potential:

Bioconcentration factor: < 1.5 (OECD Guideline 305 C)

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal Considerations

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

Untamminated packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

14. Transport Information

Domestic transport:

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

Regulations of the European union (Labelling)

EC-Number: 403-800-1

as in Annex VI of Directive 67/548/EEC:

R-phrase(s)

R53

May cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S61

Avoid release to the environment. Refer to special instructions/safety data sheets.

Other regulations

16. Other Information

Unsuitable for use: This material is not intended for use in products for which prolonged contact with mucous membranes, body fluids or abraded skin, or implantation within the human body, is specifically intended, unless the finished product has been tested in accordance with nationally and internationally applicable safety testing requirements. Because of the wide range of such potential uses, we are not able to recommend this material as safe and effective for such uses and assume no liability for such uses.

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. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.