

# Safety Data Sheet

## Tinuvin® 405

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Version: 4.0

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(30483787/SDS\_GEN\_US/EN)

### 1. Identification

#### Product identifier used on the label

## Tinuvin® 405

#### Recommended use of the chemical and restriction on use

Recommended use\*: Chemical; industrial chemicals

\* 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

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### 2. Hazards Identification

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

#### Classification of the product

Aquatic Chronic                      4                      Hazardous to the aquatic environment - chronic

#### Label elements

##### Hazard Statement:

H413                      May cause long lasting harmful effects to aquatic life.

##### Precautionary Statements (Prevention):

P273                      Avoid release to the environment.

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### Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

### Hazards not otherwise classified

The product is under certain conditions capable of dust explosion.

## 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>
137658-79-8	>= 75.0 - <= 100.0%	Phenol, 2-[4,6-bis(2,4-dimethylphenyl)-1,3,5-triazin-2-yl]-5-[3-[(2-ethylhexyl)oxy]-2-hydroxypropoxy]-

## 4. First-Aid Measures

### Description of 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.

#### If on skin:

Wash thoroughly with soap and water. If irritation develops, seek medical attention.

#### If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open. If irritation develops, seek medical attention.

#### If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Seek medical attention if necessary.

### Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

### Indication of any immediate medical attention and special treatment needed

#### Note to physician

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

## 5. Fire-Fighting Measures

### Extinguishing media

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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.

### Special hazards arising from the substance or mixture

Hazards during fire-fighting:

harmful vapours

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

### Advice for fire-fighters

Protective equipment for fire-fighting:

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

### Further information:

Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

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## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Use personal protective clothing.

### Environmental precautions

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

### Methods and material for containment and cleaning 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.

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## 7. Handling and Storage

### Precautions for safe handling

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

Closed containers should only be opened in well-ventilated areas.

Protection against fire and explosion:

Avoid dust formation. Take precautionary measures against static discharges.

Dust can form an explosive mixture with air.

### Conditions for safe storage, including any incompatibilities

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

Avoid all sources of ignition: heat, sparks, open flame.

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### 8. Exposure Controls/Personal Protection

No occupational exposure limits known.

#### Personal protective equipment

##### **Respiratory protection:**

Wear a NIOSH-certified (or equivalent) particulate respirator.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

##### **Hand protection:**

Chemical resistant protective gloves

##### **Eye protection:**

Safety glasses with side-shields. Wear face shield if splashing hazard exists.

##### **General safety and hygiene measures:**

Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice.

### 9. Physical and Chemical Properties

Form:	solid	
Odour:	odourless	
Odour threshold:	not determined	
Colour:	yellow	
pH value:	not applicable	
Melting point:	75 - 77 °C	(Directive 92/69/EEC, A.1)
Boiling point:	> 280 °C	(OECD Guideline 103)
Flash point:	No data available.	
Flammability:	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.	
Autoignition:	420 °C	(BAM)
Vapour pressure:	< 0.0000001 Pa ( 20 °C) Extrapolated value	(Directive 92/69/EEC, A.4)
Density:	1,180 g/cm <sup>3</sup> ( 22 °C)	(Directive 92/69/EEC, A.3)
Relative density:	approx. 1.18 ( 20 °C)	(Directive 92/69/EEC, A.3)
Vapour density:	The product is a non-volatile solid.	
Partitioning coefficient n-octanol/water (log Pow):	9.6 ( 25 °C)	(calculated)
Self-ignition temperature:	not self-igniting	(Directive 92/69/EEC, A.16)
Thermal decomposition:	not self-igniting > 300 °C (DSC (OECD 113))	

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Viscosity, dynamic:	Study does not need to be conducted.
Particle size:	No data available.
% volatiles:	not determined
Solubility in water:	< 0.0001 g/l ( 20 °C)
Solubility (quantitative):	160 g/kg standard fat ( 37 °C)
Molar mass:	583.77 g/mol
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:  
Corrosive effects to metal are not anticipated.

Oxidizing properties:  
not fire-propagating (Directive 92/69/EEC, A.17)

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.
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### Chemical stability

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

### Possibility of hazardous reactions

Dust explosion hazard.

### Conditions to avoid

Avoid electro-static discharge. Avoid sources of ignition.

### Incompatible materials

strong acids, strong bases, strong oxidizing agents

### Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:  
> 300 °C (DSC (OECD 113))

## 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.

Primary routes of entry  
Ingestion.

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Skin  
Inhalation.  
Eyes

### Acute Toxicity/Effects

#### Acute toxicity

Assessment of acute toxicity: Of low toxicity after single ingestion. Virtually nontoxic after a single skin contact.

#### Oral

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg (OECD Guideline 401)

#### Inhalation

Study does not need to be conducted.

#### Dermal

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg (OECD Guideline 402)

#### Assessment other acute effects

Assessment of STOT single:

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

#### Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. May cause slight irritation to the eyes.

#### Skin

Species: rabbit

Result: non-irritant

Method: OECD Guideline 404

#### Eye

Species: rabbit

Result: non-irritant

Method: OECD Guideline 405

#### Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Species: guinea pig

Result: Non-sensitizing.

Method: OECD Guideline 406

#### Aspiration Hazard

not applicable

### Chronic Toxicity/Effects

#### Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects.

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### Genetic toxicity

Assessment of mutagenicity: No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

The substance was not genotoxic in mammalian cell culture.

### Carcinogenicity

Assessment of carcinogenicity: None of the components in this product at concentrations greater than 0.1% are listed by IARC; NTP, OSHA or ACGIH as a carcinogen.

### Reproductive toxicity

Assessment of reproduction toxicity: No data available.

### Teratogenicity

Assessment of teratogenicity: No data available.

## Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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## 12. Ecological Information

### Toxicity

#### Toxicity to fish

LC50 (96 h) > 100 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 84/449/EEC, C.1, static)

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous dispersion has been tested.

#### Aquatic invertebrates

EC50 (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

The product has low solubility in the test medium. A saturated solution has been tested. Limit concentration test only (LIMIT test). The details of the toxic effect relate to the nominal concentration.

#### Aquatic plants

EC50 (72 h) > 100 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201, static)

The product has low solubility in the test medium. A saturated solution has been tested. The details of the toxic effect relate to the nominal concentration. Limit concentration test only (LIMIT test).

### Microorganisms/Effect on activated sludge

#### Toxicity to microorganisms

OECD Guideline 209 aquatic

activated sludge of a predominantly domestic sewage/EC50 (0.50 h): > 100 mg/l

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous dispersion has been tested.

### Persistence and degradability

#### Assessment biodegradation and elimination (H2O)

Not readily biodegradable (by OECD criteria). Poorly biodegradable.

#### Elimination information

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0 % CO<sub>2</sub> formation relative to the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic, activated sludge, domestic)

### Assessment of stability in water

Study does not need to be conducted.

### Information on Stability in Water (Hydrolysis)

Study does not need to be conducted.

## Bioaccumulative potential

### Assessment bioaccumulation potential

Does not significantly accumulate in organisms.

## Mobility in soil

### Assessment transport between environmental compartments

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

Adsorption to solid soil phase is expected.

## Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

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## 13. Disposal considerations

### **Waste disposal of substance:**

Do not discharge into drains/surface waters/groundwater. Dispose of in accordance with national, state and local regulations.

### **Container disposal:**

Dispose of in accordance with national, state and local regulations. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

### **RCRA:**

Not a hazardous waste under RCRA (40 CFR 261).

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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

**VOC content:**

not determined

**Federal Regulations**

**Registration status:**

Chemical TSCA, US released / listed

**EPCRA 311/312 (Hazard categories):** Not hazardous;

**NFPA Hazard codes:**

Health : 1 Fire: 1 Reactivity: 0 Special:

**HMIS III rating**

Health: 1 Flammability: 1 Physical hazard: 0

### 16. Other Information

**SDS Prepared by:**

BASF NA Product Regulations  
SDS Prepared on: 2016/03/04

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Due to the merger of CIBA and BASF Group all Material Safety Data Sheets have been reassessed on the basis of consolidated information. This may have resulted in changes of the Material Safety Data Sheets. In case you have questions concerning such changes please contact us at the address mentioned in Section I.

END OF DATA SHEET