

Safety Data Sheet

Tinuvin® 405

Revision date : 2020/01/17

Version: 5.0

Page: 1/10

(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*: stabilizer

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

Chemical family: Derivative based on: triazine

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

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

Safety Data Sheet

Tinuvin® 405

Revision date : 2020/01/17
Version: 5.0

Page: 2/10
(30483787/SDS_GEN_US/EN)

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

Under the referenced regulation, this product does not contain any components classified for health hazards above the relevant cut off value.

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 200-300 ml of water. Do not induce vomiting. Seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available 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

Suitable extinguishing media:
dry powder, foam

Safety Data Sheet

Tinuvin® 405

Revision date : 2020/01/17

Version: 5.0

Page: 3/10

(30483787/SDS_GEN_US/EN)

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.

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.

7. Handling and Storage

Precautions for safe handling

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

Protection against fire and explosion:

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.

8. Exposure Controls/Personal Protection

No occupational exposure limits known.

Safety Data Sheet

Tinuvin® 405

Revision date : 2020/01/17

Version: 5.0

Page: 4/10

(30483787/SDS_GEN_US/EN)

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:	powder	
Odour:	odourless	
Odour threshold:	not determined	
Colour:	light yellow	
pH value:	6.1 (20 °C)	(Directive 92/69/EEC, A.6)
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:	< 0.000001 Pa (20 °C) Extrapolated value	(Directive 92/69/EEC, A.4)
Density:	1,180 g/cm ³ (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	
Viscosity, dynamic:	> 300 °C (DSC (OECD 113))	
Particle size:	Study does not need to be conducted.	
% volatiles:	No data available.	
Solubility in water:	not determined	
Solubility (quantitative):	< 0.1 mg/l (20 °C)	
	160 g/kg standard fat (37 °C)	

Safety Data Sheet

Tinuvin® 405

Revision date : 2020/01/17
Version: 5.0

Page: 5/10
(30483787/SDS_GEN_US/EN)

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.

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.

Skin

Inhalation.

Eyes

Acute Toxicity/Effects

Acute toxicity

Safety Data Sheet

Tinuvin® 405

Revision date : 2020/01/17

Version: 5.0

Page: 6/10

(30483787/SDS_GEN_US/EN)

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.

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

Safety Data Sheet

Tinuvin® 405

Revision date : 2020/01/17

Version: 5.0

Page: 7/10

(30483787/SDS_GEN_US/EN)

Assessment of carcinogenicity: No data available concerning carcinogenic effects.

Reproductive toxicity

Assessment of reproduction toxicity: No data available.

Teratogenicity

Assessment of teratogenicity: No data available.

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. Based on long-term (chronic) toxicity study data, the product is very likely not harmful to aquatic organisms. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

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. No toxic effects occur within the range of solubility. Limit concentration test only (LIMIT test). No effects at the highest test concentration. The product has low solubility in the test medium. A saturated solution 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. No toxic effects occur within the range of solubility. At higher pH-levels the substance can show higher toxicity with increasing alkalinity.

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). No toxic effects occur within the range of solubility. No effects at the highest test concentration.

No observed effect concentration (72 h) >= 100 mg/l (growth rate), Desmodesmus 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). No toxic effects occur within the range of solubility. No effects at the highest test concentration.

Chronic toxicity to fish

No data available.

Chronic toxicity to aquatic invertebrates

No observed effect concentration (21 d) > 1.5 mg/l, Daphnia magna (OECD Guideline 211, semistatic)

The product has low solubility in the test medium. A saturated solution has been tested. Limit concentration test only (LIMIT test). No effects at the highest test concentration. No toxic effects occur within the range of solubility. The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Safety Data Sheet

Tinuvin® 405

Revision date : 2020/01/17
Version: 5.0

Page: 8/10
(30483787/SDS_GEN_US/EN)

Assessment of terrestrial toxicity

No data available concerning terrestrial toxicity.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 aquatic

activated sludge of a predominantly domestic sewage/EC50 (30 min): > 100 mg/l

The details of the toxic effect relate to the nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

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

Elimination information

0 % CO₂ 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

No data available.

Study technically not feasible.

Information on Stability in Water (Hydrolysis)

Study technically not feasible.

Bioaccumulative potential

Assessment bioaccumulation potential

Does not significantly accumulate in organisms.

Bioaccumulation potential

Bioconcentration factor: < 11 (56 d), Cyprinus carpio (OECD Guideline 305 C)

Bioconcentration factor: 1 (56 d), Cyprinus carpio (OECD Guideline 305 C)

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.

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.

Safety Data Sheet

Tinuvin® 405

Revision date : 2020/01/17

Version: 5.0

Page: 9/10

(30483787/SDS_GEN_US/EN)

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).

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

15. Regulatory Information

VOC content:

not determined

Federal Regulations**Registration status:**

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

NFPA Hazard codes:

Health: 1 Fire: 1 Reactivity: 0 Special:

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2020/01/17

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Safety Data Sheet

Tinuvin® 405

Revision date : 2020/01/17

Version: 5.0

Page: 10/10

(30483787/SDS_GEN_US/EN)

operations on society and the environment during production, storage, transport, use and disposal of our products.

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END OF DATA SHEET