

Safety Data Sheet

Tinuvin® 5151

Revision date : 2022/03/04

Version: 7.0

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(30472146/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Tinuvin® 5151

Recommended use of the chemical and restriction on use

Recommended use*: stabilizer

Recommended use*: stabilizer

* 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

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: light stabilizer, mixture

2. Hazards Identification

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

Classification of the product

Skin Sens.	1A	Skin sensitization
Repr.	2 (fertility)	Reproductive toxicity
Repr.	2 (fertility)	Reproductive toxicity
Aquatic Acute	1	Hazardous to the aquatic environment - acute
Aquatic Chronic	1	Hazardous to the aquatic environment - chronic

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Label elements

Pictogram:



Signal Word:
Warning

Hazard Statement:

H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P273	Avoid release to the environment.
P261	Avoid breathing mist or vapour or spray.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P391	Collect spillage.
P308 + P313	IF exposed or concerned: Get medical attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P405	Store locked up.
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Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.
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Hazards not otherwise classified

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

3. Composition / Information on Ingredients

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

bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate

CAS Number: 41556-26-7

Content (W/W): ≥ 20.0 - $< 50.0\%$

Synonym: Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidyl) ester

Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

CAS Number: 82919-37-7

Content (W/W): ≥ 7.0 - $< 10.0\%$

Synonym: Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyloxy)

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ester

Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxy-, methyl ester

CAS Number: 84268-33-7

Content (W/W): >= 1.0 - < 3.0%

Synonym: No data available.

Poly(oxy-1,2-ethanediyl), .alpha.-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-.omega.-[3-[3-(2H

CAS Number: 104810-47-1

Content (W/W): >= 20.0 - < 50.0%

Synonym: No data available.

Poly(oxy-1,2-ethanediyl), .alpha.-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-.omega.-hydroxy-

CAS Number: 104810-48-2

Content (W/W): >= 25.0 - < 50.0%

Synonym: No data available.

4. First-Aid Measures

Description of first aid measures

General advice:

Immediately remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

If on skin:

Wash affected areas thoroughly with soap and water. 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:

Immediately rinse mouth and then drink 200 - 300 ml water, do not induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

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.

Information on: bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate

Symptoms: Overexposure may cause: skin irritation, erythema, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Information on: Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Symptoms: Overexposure may cause: skin irritation, erythema, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

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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:
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water jet

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:

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, protective equipment and emergency procedures

Use personal protective clothing.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Keep away from sources of ignition - No smoking.

Protection against fire and explosion:

Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

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Segregate from foods and animal feeds.

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

8. Exposure Controls/Personal Protection

No occupational exposure limits known.

Personal protective equipment

Respiratory protection:

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

Hand protection:

Chemical resistant protective gloves

Eye protection:

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

Body protection:

Impermeable protective clothing

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	liquid, viscous
Odour:	odourless
Odour threshold:	No applicable information available.
Colour:	amber
pH value:	not determined
Freezing point:	not determined
Melting point:	not determined
boiling temperature:	> 300 °C
Flash point:	120 °C (ISO 2719, closed cup)
Flammability:	not determined
Lower explosion limit:	For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.
Upper explosion limit:	For liquids not relevant for classification and labelling.
Autoignition:	not determined
Vapour pressure:	not determined
Density:	1.105 g/cm ³ (20 °C)
Relative density:	approx. 1.105 (20 °C)
Vapour density:	not determined
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures
Thermal decomposition:	not determined

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Viscosity, dynamic:	3,000 mPa.s (20 °C)
Solubility in water:	< 100 mg/l (20 °C)
Evaporation rate:	not determined

10. Stability and Reactivity

Reactivity

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

Oxidizing properties:
not fire-propagating

Chemical stability

The product is chemically stable.

Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.
The product is chemically stable.

Conditions to avoid

See SDS section 7 - Handling and storage.
Avoid excessive temperatures.

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:
not determined

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

Assessment of acute toxicity: Of low toxicity after single ingestion. The data on toxicology refer to the active ingredient.

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Oral

Type of value: LD50

Species: rat

Value: > 5,000 mg/kg (OECD Guideline 401)

No mortality was observed. The data on toxicology refer to the active ingredient.

Inhalation

Type of value: LC50

Species: rat

Value: > 5,800 mg/l (OECD Guideline 403)

Exposure time: 14 d

No mortality was observed. The data on toxicology refer to the active ingredient.

Dermal

Type of value: LD50

Species: rat

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

No mortality was observed. The data on toxicology refer to the active ingredient.

Assessment other acute effects

No data available.

Irritation / corrosion

Assessment of irritating effects: May cause slight irritation to the skin. Not irritating to the eyes. The data on toxicology refer to the active ingredient.

Skin

Species: rabbit

Result: non-irritant

Method: OECD Guideline 404

The data on toxicology refer to the active ingredient.

Eye

Species: rabbit

Result: non-irritant

Method: OECD Guideline 405

The data on toxicology refer to the active ingredient.

Sensitization

Assessment of sensitization: May cause sensitization by skin contact. The product has not been tested. The statement has been derived from the properties of the individual components.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: May cause central nervous system effects. The data on toxicology refer to the active ingredient.

Information on: bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate

Assessment of repeated dose toxicity: The substance may reversibly affect the nervous system, but there are no indications of permanent nerve cell damage. The effects were only observed at doses/concentrations not relevant for classification and/or practical use conditions.

Information on: Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

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Assessment of repeated dose toxicity: The substance may reversibly affect the nervous system, but there are no indications of permanent nerve cell damage. The effects were only observed at doses/concentrations not relevant for classification and/or practical use conditions.

Carcinogenicity

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

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies suggest a fertility impairing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish

LC50 (96 h) > 1 - 10 mg/l, Oncorhynchus mykiss

The product has not been tested. The statement has been derived from the properties of the individual components.

Aquatic invertebrates

EC50 (48 h) > 1 - 10 mg/l, Daphnia magna

The product has not been tested. The statement has been derived from the properties of the individual components.

Aquatic plants

EC50 (72 h) > 1 - 10 mg/l (growth rate), Desmodium subspicatus

The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic toxicity to fish

No data available.

Chronic toxicity to aquatic invertebrates

No observed effect concentration (21 d) > 0.1 - 1 mg/l, Daphnia magna (OECD Guideline 211, semistatic)

The product has not been tested. The statement has been derived from the properties of the individual components.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 aerobic

activated sludge, domestic/EC50 (3 h): > 100 mg/l

The product has not been tested. The statement has been derived from the properties of the individual components.

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Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Not readily biodegradable (by OECD criteria). The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulative potential

Assessment bioaccumulation potential

The product has not been tested.

Mobility in soil

Assessment transport between environmental compartments

No data available.

Additional information

Add. remarks environm. fate & pathway:

Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

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

Container disposal:

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

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Hazard class:	9
Packing group:	III
ID number:	UN 3082
Hazard label:	9, EHSM
Marine pollutant:	YES
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PENTAMETHYL-4-PIPERIDYL SEBACATE DERIVATIVE)

Air transport

IATA/ICAO

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Hazard class:	9
Packing group:	III
ID number:	UN 3082
Hazard label:	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PENTAMETHYL-4-PIPERIDYL SEBACATE DERIVATIVE)

15. Regulatory Information

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: 2 Fire: 1 Reactivity: 0 Special:

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2022/03/04

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END OF DATA SHEET