1. Identification

Product identifier used on the label

Tinuvin® 292

Recommended use of the chemical and restriction on use

Recommended use*: stabilizer
Unsuitable for use: The product is not recommended to be used in contact with mucous membranes, abraded skin, or blood; or for the manufacture of implants for the human body as it has not been tested for these applications.
Suitable for use in industrial sector: Polymers industry; chemical industry

* 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: Sterically hindered amine light stabilizer

2. Hazards Identification


Classification of the product

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Sens.</td>
<td>1A</td>
<td>Skin sensitization</td>
</tr>
<tr>
<td>Repr.</td>
<td>2</td>
<td>Reproductive toxicity</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>1</td>
<td>Hazardous to the aquatic environment - acute</td>
</tr>
</tbody>
</table>
Safety Data Sheet
Tinuvin® 292

Revision date: 2021/07/08
Version: 6.1

Aquatic Chronic 1 Hazardous to the aquatic environment - chronic

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.

Precautionary Statements (Disposal):
P501 Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified
No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition / Information on Ingredients


bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
CAS Number: 41556-26-7
Content (W/W): 75.0 - < 100.0%
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
4. First-Aid Measures

**Description of first aid measures**

**General advice:**
Immediately remove contaminated clothing. If the patient is likely to become unconscious, place and transport in a stable sideways position (recovery position). First aid personnel should pay attention to their own safety.

**If inhaled:**
Keep patient calm, remove to fresh air, seek medical attention.

**If on skin:**
Wash affected areas with water while removing contaminated clothing. 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 immediately with water. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting due to aspiration hazard. 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.

*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*

**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
6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Use personal protective clothing. Keep people away and stay on the upwind side. Breathing protection required.

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

**Methods and material for containment and cleaning up**
For large amounts: Pump off product. For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

**Precautions for safe handling**
Wear suitable protective clothing, gloves, eye protection and/or respiratory protection.

Use with local exhaust ventilation. Provide extract ventilation to points where emissions occur (LEV). Avoid contact with the skin, eyes and clothing. Provide specific employee training to prevent/minimize exposures.

Protection against fire and explosion: No special precautions necessary.

**Conditions for safe storage, including any incompatibilities**
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.

8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.
**Advice on system design:**
Ensure adequate ventilation.

**Personal protective equipment**
**Respiratory protection:**
Wear respiratory protection if ventilation is inadequate. Respiratory protection in case of vapour/aerosol release. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

**Hand protection:**
Chemical resistant protective gloves

**Eye protection:**
Safety glasses with side-shields.

**Body protection:**
Body protection must be chosen based on level of activity and exposure. Protective coverall and/or impermeable apron and boots as necessary.

**General safety and hygiene measures:**
Wearing of closed work clothing is required additionally to the stated personal protection equipment. Handle in accordance with good industrial hygiene and safety practice.

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### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form:</strong></td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td><strong>Odour:</strong></td>
<td>ester-like</td>
<td></td>
</tr>
<tr>
<td><strong>Odour threshold:</strong></td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td><strong>Colour:</strong></td>
<td>light yellow</td>
<td></td>
</tr>
<tr>
<td><strong>pH value:</strong></td>
<td>8.4 (1 % (m), 20 - 25 °C)</td>
<td>(as suspension)</td>
</tr>
<tr>
<td><strong>glass transition:</strong></td>
<td>-57.8 °C</td>
<td>(Directive 92/69/EEC, A.1)</td>
</tr>
<tr>
<td><strong>temperature:</strong></td>
<td>(1,013 hPa)</td>
<td></td>
</tr>
<tr>
<td><strong>Freezing point:</strong></td>
<td>No data available.</td>
<td>(Directive 92/69/EEC, A.2)</td>
</tr>
<tr>
<td><strong>boiling temperature:</strong></td>
<td>&gt; 300 °C</td>
<td></td>
</tr>
<tr>
<td><strong>Sublimation point:</strong></td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
<td>209.5 °C</td>
<td>(Directive 92/69/EEC, A.9)</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td>not applicable</td>
<td>(derived from flash point)</td>
</tr>
<tr>
<td><strong>Lower explosion limit:</strong></td>
<td>For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.</td>
<td></td>
</tr>
<tr>
<td><strong>Upper explosion limit:</strong></td>
<td>For liquids not relevant for classification and labelling.</td>
<td></td>
</tr>
<tr>
<td><strong>Autoignition:</strong></td>
<td>380 °C</td>
<td>(DIN 51794)</td>
</tr>
<tr>
<td><strong>Vapour pressure:</strong></td>
<td>0.0000001 hPa (20 °C)</td>
<td>(OECD Guideline 104)</td>
</tr>
<tr>
<td><strong>Density:</strong></td>
<td>0.993 g/cm3 (20 °C)</td>
<td>(OECD Guideline 109)</td>
</tr>
<tr>
<td><strong>Relative density:</strong></td>
<td>0.99</td>
<td>(OECD Guideline 109)</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Reactivity

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

Corrosion to metals:
No corrosive effect on metal.

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

Minimum ignition energy:

No data available.

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

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

Conditions to avoid

No special precautions other than good housekeeping of chemicals.
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:
325 °C
No decomposition if stored and handled as prescribed/indicated.

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.

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 (male/female)
Value: 3,230 mg/kg (similar to OECD guideline 401)

Inhalation
not determined

Dermal
Type of value: LD50
Species: rat (male/female)
Value: > 3,170 mg/kg (similar to OECD guideline 402)
No mortality was observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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 eyes and skin.

Skin
Species: rabbit
Result: non-irritant
Method: OPP 81-5 (EPA-Guideline)

Eye
Species: rabbit  
Result: non-irritant  
Method: similar to OECD guideline 405

Sensitization
Assessment of sensitization: Sensitization after skin contact possible.

Information on: bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate  
Assessment of sensitization:  
Sensitization after skin contact possible.

Information on: Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate  
Assessment of sensitization:  
Sensitization after skin contact possible.

----------------------------------
Guinea pig maximization test  
Species: guinea pig  
Result: sensitizing  
Method: OECD Guideline 406

Aspiration Hazard  
No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity  
Assessment of repeated dose toxicity: Based on the chemical structure a neurotoxic effect by repeated administration cannot be excluded. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Genetic toxicity  
Assessment of mutagenicity: In the majority of studies performed with microorganisms and in mammalian cell culture, a mutagenic effect was not found. A mutagenic effect was also not observed in in vivo tests. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.  
Genetic toxicity in vitro: Ames-test negative

Carcinogenicity  
Assessment of carcinogenicity: No data available concerning carcinogenic effects.

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 substances/products of a similar structure or composition.

Teratogenicity  
Assessment of teratogenicity: In animal studies the substance did not cause malformations. The potential to cause toxicity to development cannot be excluded at maternally toxic doses.

Experiences in humans  
Sensitizing effects by skin contact.

Other Information  
Tested as a preparation.
12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Very toxic (acute effect) to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish
LC50 (96 h) 0.9 mg/l, Brachydanio rerio (OECD Guideline 203, semistatic)
The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Aquatic invertebrates
Study does not need to be conducted.

Aquatic plants
EC50 (72 h) 1.68 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static)
The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Chronic toxicity to fish
Study not necessary due to exposure considerations.

Chronic toxicity to aquatic invertebrates
No observed effect concentration (21 d) 1 mg/l, Daphnia magna (OECD Guideline 211, semistatic)
The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Assessment of terrestrial toxicity
No data available.
Study not necessary due to exposure considerations.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
OECD Guideline 209 aquatic activated sludge, domestic/EC20 (3 h): >= 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). Moderately/partially biodegradable.

Elimination information

38 % DOC reduction (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, aerobic microorganisms)

Assessment of stability in water
In contact with water the substance will hydrolyse slowly.
Information on Stability in Water (Hydrolysis)
$t_{1/2}$ 51 d (25 °C, pH value 7), (OECD Guideline 111, pH 7)
The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

$t_{1/2}$ 68 d (25 °C, pH value 7), (OECD Guideline 111, pH 7)
The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

$t_{1/2}$ 3.6 d (25 °C, pH value 9), (OECD Guideline 111, pH 9)
The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

$t_{1/2}$ 2.6 d (25 °C, pH value 9), (OECD Guideline 111, pH 9)
The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Bioaccumulative potential

Assessment bioaccumulation potential
Accumulation in organisms is not to be expected.

Bioaccumulation potential
Bioconcentration factor: < 9.7 (8 d), Cyprinus carpio (other)

Bioconcentration factor: < 31.4 (8 d), Cyprinus carpio (other)

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 allow to enter soil, waterways or waste water channels. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

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.
It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA.

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
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.

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including FORMALDEHYDE (GAS), which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:
Health: 2 Fire: 1 Reactivity: 0 Special:

HMIS III rating
Health: 2 Flammability: 1 Physical hazard: 0 (Essentially no hazard )

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Aquatic Chronic 1 Hazardous to the aquatic environment - chronic
Aquatic Acute 1 Hazardous to the aquatic environment - acute
Acute Tox. 5 (oral) Acute toxicity
Repr. 2 (fertility) Reproductive toxicity
Skin Sens. 1A Skin sensitization
16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2021/07/08

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