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# Safety Data Sheet

## Chimassorb® 944 FDL

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Version: 5.1

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(30208464/SDS\_GEN\_US/EN)

### 1. Identification

#### Product identifier used on the label

**Chimassorb® 944 FDL**

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

Recommended use\*: additive for the plastics industry  
stabilizer; 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: Sterically hindered amine light stabilizer

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### 2. Hazards Identification

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

#### Classification of the product

Combustible Dust      Combustible Dust (1)      Combustible Dust

#### Label elements

Signal Word:  
Warning

Hazard Statement:

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May form combustible dust concentration in air.

### Hazards not otherwise classified

The product is under certain conditions capable of dust explosion.

Labeling of special preparations (GHS):  
To avoid inhalation hazard, do not grind.

## 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>
70624-18-9	<= 100.0%	1,6-Hexanediamine, N,N'-bis(2,2,6,6-tetramethyl-4-piperidiny)-, polymer with 2,4,6-trichloro-1,3,5-triazine, reaction products with 2,4,4-trimethyl-2-pentanamine

## 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. Immediate medical attention required.

### 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.

Further important symptoms and effects are so far not known.

### 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.

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### 5. Fire-Fighting Measures

#### Extinguishing media

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

#### Further accidental release measures:

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

#### 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

Nonsparking tools should be used.

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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. Avoid dust formation. Do not use any sparking tools.

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### Protection against fire and explosion:

Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

Dust explosion class: Dust explosion class 2 (Kst-value 200 up to 300 bar m s-1).

### Conditions for safe storage, including any incompatibilities

No applicable information available.

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

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## 8. Exposure Controls/Personal Protection

The nuisance dust limit value is to be kept.

### Advice on system design:

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

### Personal protective equipment

#### Respiratory protection:

Respiratory protection may not be required under normal operating conditions if adequate ventilation is provided.

#### Hand protection:

Wear 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.

#### General safety and hygiene measures:

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

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## 9. Physical and Chemical Properties

Form:	powder to fine granules
Odour:	odourless
Odour threshold:	No data available.

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Colour:	white to slightly yellow
pH value:	6.8 ( 1 %(m), 20 - 25 °C) (as aqueous solution)
Melting point:	100 - 135 °C
Boiling point:	not applicable
Sublimation point:	No data available.
Flash point:	not applicable, the product is a solid
Flammability:	not flammable
Lower explosion limit:	No data available.
Upper explosion limit:	No data available.
Autoignition:	410 °C
Vapour pressure:	The product has not been tested.
Relative density:	No data available.
Bulk density:	450 - 610 g/l
Vapour density:	No data available.
Partitioning coefficient n-octanol/water (log Pow):	2.44 ( 20 - 25 °C)
Self-ignition temperature:	not self-igniting
Thermal decomposition:	No decomposition if correctly stored and handled.
Viscosity, dynamic:	not determined
Viscosity, kinematic:	No data available.
Solubility in water:	< 0.1 mg/l ( 20 °C)
Solubility (quantitative):	No data available.
Solubility (qualitative):	No data available.
Evaporation rate:	The product is a non-volatile solid.
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

## 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:

not fire-propagating

Dust explosivity characteristics:

Kst: 203 m.bar/s

Revaluation 2015

Dust explosion class:

Dust explosion class 2 (Kst-value 200 up to 300 bar m s-1) (St 2)

### Chemical stability

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

### Possibility of hazardous reactions

In spite of the dedusting carried out for reasons of industrial health the product resp. the fine dust of the product is capable of dust explosion.

### Conditions to avoid

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

### 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:

No decomposition if correctly stored and handled.

## 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: Overexposure to dust may cause lung damage.

#### Oral

Type of value: LD50

Species: rat

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

#### Inhalation

*Information on: Polymeric sterically hindered amine light stabiliser*

*Type of value: LC50*

*Species: rat*

*Value: 0.112 mg/l*

*Exposure time: 4 h*

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#### Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 3,000 mg/kg (OECD Guideline 402)

No mortality was observed.

#### 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.

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### Skin

Species: rabbit  
Result: non-irritant

### Eye

Species: rabbit  
Result: non-irritant  
Method: OECD Guideline 405

### Sensitization

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

### Guinea pig maximization test

Species: guinea pig  
Result: Non-sensitizing.  
Method: OECD Guideline 406

### Aspiration Hazard

No aspiration hazard expected.

## **Chronic Toxicity/Effects**

### Repeated dose toxicity

Assessment of repeated dose toxicity: Based on available Data, the classification criteria are not met.

Repeated exposure may cause effects on the liver, lymph nodes, spleen and blood.

Experimental/calculated data: OECD Guideline 408 rat (Sprague-Dawley) (male/female) oral feed 3 months 0, 100, 500, 2000, 10000 ppm

NOAEL: approx. 7 mg/kg

OECD Guideline 453 rat (Sprague-Dawley) (male/female) oral feed 24 months 0, 5, 30, and 200 mg/kg

NOAEL: 5 mg/kg

OECD Guideline 408 rat (Sprague-Dawley) (male/female) oral feed 6 months 0, 5, 30, 200 mg/kg

NOAEL: 5 mg/kg

### Genetic toxicity

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

### 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. In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed.

Based on the ingredients there is no suspicion of a carcinogenic effect in humans.

Experimental/calculated data: OECD Guideline 453 rat (Sprague-Dawley) (male/female) oral feed 0, 5, 30, and 200 mg/kg

Result: negative

### Reproductive toxicity

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

### Teratogenicity

Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

### Other Information

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There is no formation of respirable dust during intended uses. However, if dust formation occurs at processing/finishing processing steps like regranulation, mechanical machining (for example drilling, grinding etc.), occupational protection regulations have to be considered.

### Symptoms of Exposure

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.

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## 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.

### Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O)  
The product is virtually insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plants.

#### Elimination information

Not readily biodegradable (by OECD criteria).

### Bioaccumulative potential

Assessment bioaccumulation potential  
Significant accumulation in organisms is not to be expected.

### Mobility in soil

Assessment transport between environmental compartments  
The substance will not evaporate into the atmosphere from the water surface.

### Additional information

Other ecotoxicological advice:  
Do not discharge product into the environment without control. The product has not been tested. The statement has been derived from the properties of the individual components.

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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.



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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

### 15. Regulatory Information

#### Federal Regulations

##### Registration status:

Chemical TSCA, US released / listed

**EPCRA 311/312 (Hazard categories):** Fire (Combustible Dust);

##### CA Prop. 65:

WARNING: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

##### NFPA Hazard codes:

Health : 1 Fire: 2 Reactivity: 0 Special:

##### HMIS III rating

Health: 1 Flammability: 2 Physical hazard: 0

### 16. Other Information

#### SDS Prepared by:

BASF NA Product Regulations  
SDS Prepared on: 2016/06/10

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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