

Irganox® L 135

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1. Identification

Product identifier used on the label

Irganox® L 135

Recommended use of the chemical and restriction on use

Recommended use*: Antioxidant / Stabilizer; Antioxidant for Lubricants; additives for fuels and lubricants; additive for the petroleum industry

Details of the supplier of the safety data sheet

Company:

BASF Mexicana S.A. de C.V. Av. Insurgentes Sur 975 Col. CD. De Los Deportes, C.P. 03710, MEXICO

Telephone: +52 55 5325 2600

Emergency telephone number

Tel.: +1-800-849-5204 or +1-833-229-1000

CHEMTREC Int.: +1-703-527-3887

Other means of identification

Chemical family: preparation

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.

^{*} 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.

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Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition / Information on Ingredients

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

CAS Number

Weight %

Chemical name

6386-38-5 3.0 - 7.0%

Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, methyl ester

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, 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: 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:

Wear a self-contained breathing apparatus.

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.

Impact Sensitivity:

Assessment: no

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

No special measures necessary provided product is used correctly.

Protection against fire and explosion:

No special precautions necessary.

Conditions for safe storage, including any incompatibilities

No applicable information available.

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

8. Exposure Controls/Personal Protection

Does not contain components with substance specific occupational exposure limits.

No occupational exposure limits known.

Advice on system design:

No applicable information available.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. 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.

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.

9. Physical and Chemical Properties

Form: liquid Odour: mild

Odour threshold: No applicable information available.

Colour: yellow to brown

pH value: 6.5

(1 %(m), 20 - 25 °C)

(as suspension)

Melting point: < -30 °C (Directive 92/69/EEC,

A.1)

Boiling point: 240 °C

(1,027 hPa)

Sublimation point: No applicable information available.

Flash point: 176 °C (DIN EN 22719; ISO

2719)

Flammability: not flammable

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.

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Autoignition: 380 °C

Vapour pressure: 0.0015 Pa (OECD Guideline

> (25°C) 104)

Density: 0.95 - 0.99 g/cm3 (Directive

(20°C) 92/69/EEC, A.3) 0.92 g/cm3

(80°C) 0.905 g/cm3 (100°C)

Relative density: 0.9674 (Directive

84/449/EEC, A.3)

84/449/EEC, A.15)

Partitioning coefficient n-9.2 (20°C) octanol/water (log Pow):

Self-ignition 365 °C (Directive

temperature:

Viscosity, dynamic: 620 - 650 mPa.s

(20°C)

(20°C)

110 - 115 mPa.s

(40°C)

Viscosity, kinematic: 95 - 150 mm2/s

(40°C)

Particle size: The substance / product is marketed

or used in a non solid or granular

form.

% volatiles: negligible Solubility in water: $0.5 \mu g/l$ (20°C)

No applicable information available. Solubility (qualitative):

Molar mass: 390.6 g/mol

Evaporation rate: Value can be approximated from

Henry's Law Constant or vapor

pressure.

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 data available.

Oxidizing properties:

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

Formation of Remarks: Forms no flammable gases in the

flammable gases: 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

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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.

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

<u>Oral</u>

Type of value: LD50

Species: rat

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

Inhalation

No data available.

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 eyes and skin.

<u>Skin</u>

Species: rabbit Result: non-irritant

Method: OECD Guideline 404

Eye

Species: rabbit Result: non-irritant

Method: OECD Guideline 405

Sensitization

Assessment of sensitization: No sensitizing effect.

other

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Species: guinea pig Result: Non-sensitizing.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The substance may cause damage to the liver even after repeated ingestion of low doses, as shown in animal studies. Due to the species specific mode of action, the effects are not expected to occur in humans.

Based on available Data, the classification criteria are not met.

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not genotoxic in mammalian cell culture. The substance was not genotoxic in a test with mammals.

Carcinogenicity

Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity

Assessment of teratogenicity: The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.

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.

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. No toxic effects occur within the range of solubility. 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) > 74 mg/l, Brachydanio rerio (OECD Guideline 203)

Tested above maximum solubility. No toxic effects occur within the range of solubility.

Aquatic invertebrates

EC50 (24 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1)

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Aquatic plants

EC50 (72 h) > 3 mg/l, Scenedesmus sp. (OECD Guideline 201)

Tested above maximum solubility. No toxic effects occur within the range of solubility.

Chronic toxicity to aquatic invertebrates

No observed effect concentration (21 d) >= 1mg/L, Daphnia magna (OECD Guideline 202, part 2, semistatic)

The product has low solubility in the test medium. A saturated solution has been tested. The value meets the highest applied test concentration. No toxic effects occur within the range of solubility.

Assessment of terrestrial toxicity

Toxic effects have been observed in studies with soil living organisms.

Soil living organisms

Toxicity to soil dwelling organisms:

No observed effect concentration (56 d) 250 mg/kg, Eisenia foetida (OECD Guideline 222, artificial soil)

No observed effect concentration (28 d) 31.6 mg/kg, soil dwelling microorganisms (OECD 217)

EC50 (14 d) > 1,000 mg/kg, Eisenia foetida (OECD Guideline 207, artificial soil)

Toxicity to terrestrial plants

EC50 (19 d) > 100 mg/kg, Brassica rapa (OECD Guideline 208)

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 activated sludge/EC50 (3 h): > 100 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H2O)

The product is virtually insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plants.

Elimination information

(OECD 301B; ISO 9439; 92/69/EEC, C.4-C) Non-biodegradable.

Assessment of stability in water

In contact with water the substance will hydrolyse slowly.

Information on Stability in Water (Hydrolysis)

 $t_{1/2}$ 5 a (25 °C), (calculated, pH 7)

In contact with water the substance will hydrolyse slowly.

Bioaccumulative potential

Assessment bioaccumulation potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is possible.

Bioaccumulation potential

Bioconcentration factor: 260 (35 d), Oncorhynchus mykiss (OECD-Guideline 305)

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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:

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

TDG

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

Not classified as a dangerous good under transport regulations

15. Regulatory Information

VOC content:

negligible

Federal Regulations

Not applicable

NFPA Hazard codes:

Health: 1 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 1 Flammability: 1 Physical hazard:0

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16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2016/11/08

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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