1. Identification

Product identifier used on the label

Irganox® 1076

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.

For detailed regulatory information please request a Food Contact Certificate (FCC).

* 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
Synonyms: Sterically hindered phenol

2. Hazards Identification


Classification of the product

Combustible Dust  Combustible Dust (1)  Combustible Dust
Label elements

Signal Word: Warning

Hazard Statement: May form combustible dust concentration in air.

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. The product is under certain conditions capable of dust explosion.

3. Composition / Information on Ingredients


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

If on skin:
Remove contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. 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 swallowed:
Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed

Symptoms: No applicable information available.

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

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.

**Impact Sensitivity:**
Remarks: Based on the chemical structure there is no shock-sensitivity.

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.

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.

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.

Storage stability:
Storage temperature: < 40 °C
The packed product is not damaged by low temperatures or by frost.
Protect from temperatures above: 40 °C
The packed product must be protected against exceeding the indicated temperature.

8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

The nuisance dust limit value is to be kept.

Particles, not otherwise specified, respirable
ACGIH, US: TWA value 3 mg/m³ Respirable particles
OSHA Z3: TWA value 5 mg/m³ Respirable fraction
OSHA Z3: TWA value 15 mg/m³ Total dust
OSHA Z3: TWA value 50 millions of particles per cubic foot of air Total dust
OSHA Z3: TWA value 15 millions of particles per cubic foot of air Respirable fraction

Particles, not otherwise specified, inhalable
ACGIH, US: TWA value 10 mg/m³ Inhalable particles
OSHA Z3: TWA value 15 mg/m³ Total dust
OSHA Z3: TWA value 50 millions of particles per cubic foot of air Total dust

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:
Breathing protection if breathable aerosols/dust are formed. Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.


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.

9. Physical and Chemical Properties

Form: granules, fine
Odour: odourless
Odour threshold: not determined
Colour: white
pH value: 5.7
   (1 %(m), 20 - 25 °C)
   (as suspension)
Melting point: 50 - 55 °C
Boiling point: not applicable
Sublimation point: No data available.
Flash point: 273 °C
Flammability: not highly flammable
   (DIN 51584)
   (Directive 84/449/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: > 250 °C
   The product has not been tested. The statement has been derived from the properties of the individual components.
Vapour pressure: 26.6 Pa
   (250 °C)
Density: 1.02 g/cm³
   (25 °C)
Relative density: 1.012
   (OECD Guideline 109)
Bulk density: 490 - 760 g/l
Partitioning coefficient n-octanol/water (log Pow): > 6
Self-ignition temperature: not self-igniting
Thermal decomposition: > 350 °C
Viscosity, dynamic: not relevant
Viscosity, kinematic: not relevant
% volatiles: 0.5 %
Solubility in water: practically insoluble
Molar mass: 530.87 g/mol
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: 242 m.bar/s
Revaluation 2015

Dust explosion class:
Dust explosion class 2 (Kst-value 200 up to 300 bar m s-1) (St 2)
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 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:
> 350 °C

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: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

**Oral**
Type of value: LD50
Species: rat (male/female)
Value: > 5,000 mg/kg (similar to OECD guideline 401)

**Dermal**
Type of value: LD50
Species: rat (male/female)
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.

**Skin**
Species: rabbit
Result: non-irritant
Method: similar to OECD guideline 404

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

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

Maurer optimisation test
Species: guinea pig
Result: Non-sensitizing.
Method: other

**Aspiration Hazard**
No aspiration hazard expected.

**Chronic Toxicity/Effects**

**Repeated dose toxicity**
Assessment of repeated dose toxicity: May affect the liver as indicated in animal studies.

**Genetic toxicity**
Assessment of mutagenicity: No mutagenic effect was found in various tests with bacteria and mammals.
Genetic toxicity in vitro: Ames-test negative
Genetic toxicity in vivo: Cytogenetic assay hamster negative

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.

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

Teratogenicity
Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen
in animal studies.

Other Information
Contact allergenic properties have not been observed in test animals (guinea pigs). In humans
workroom temperatures of about 40°C and profuse sweating might exacerbate potential irritancy and
rashes may develop.

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. 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) > 100 mg/l, Fish

Aquatic invertebrates
EC50 > 100 mg/l, Daphnia magna

Aquatic plants
EC50 (72 h) > 30 mg/l, Scenedesmus sp.
Tested above maximum solubility. No toxic effects occur within the range of solubility. No effects at
the highest test concentration.

Chronic toxicity to fish
No data available regarding toxicity to fish.

Chronic toxicity to aquatic invertebrates
No observed effect concentration (21 d) >= 2 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). The details of the toxic effect relate to the nominal concentration.
No toxic effects occur within the range of solubility.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
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. Well eliminable from water by adsorption on activated sludge.

Elimination information

Not readily biodegradable (by OECD criteria).
Primary degradation.

Information on Stability in Water (Hydrolysis)
$\text{t}_{1/2} 7.2 \text{ a (25 °C)}, (\text{calculated, pH 7})$
In contact with water the substance will hydrolyse slowly.

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. 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.

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.

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
15. Regulatory Information

**Federal Regulations**

**Registration status:**
- Cosmetic: TSCA, US released / exempt
- 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 METHANOL, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

**BASF Risk Assessment, CA Prop. 65:**

A risk assessment indicates CA Proposition 65 Safe Harbor criteria are not exceeded when the product is used for Plastic Additives.

**NFPA Hazard codes:**
- Health: 1
- Flammability: 1
- Reactivity: 0
- Special: 0

**HMIS III rating**
- Health: 1
- Physical hazard: 0

16. Other Information

**SDS Prepared by:**
- BASF NA Product Regulations
- SDS Prepared on: 2021/11/10

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