Safety data sheet

1. Substance/preparation and company identification

Irganox® 1098

Use: stabilizer

Company:
BASF Australia Limited (ABN 62 008 437 867)
Level 12, 28 Freshwater Place Southbank
Victoria 3006, AUSTRALIA
Telephone: +61 3 8855-6600
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Emergency information:
BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]
BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

2. Hazard identification

NON-HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Avoid release to the environment. Refer to special instructions/safety data sheets.

3. Composition/information on ingredients

Chemical nature

Benzenepropanamide, N,N'-1,6-hexanediylbis[3,5-bis(1,1- dimethylethyl)-4-hydroxy-
CAS Number: 23128-74-7
EC-Number: 245-442-7

4. First-Aid Measures

General advice:
Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air. If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

On skin contact:
Wash thoroughly with soap and water.

On contact with eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:
Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

Note to physician:
Symptoms: Further important symptoms and effects are so far not known.
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
water spray, carbon dioxide, foam, dry powder

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
carbon monoxide, carbon dioxide, nitrogen oxides, toxic gas
The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:
Avoid contact with the skin, eyes and clothing. Use personal protective clothing. Avoid dust formation. Sources of ignition should be kept well clear.

Environmental precautions:
Do not empty into drains. Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
For small amounts: Sweep/shovel up. Dispose of contaminated material as prescribed.
For large amounts: Sweep/shovel up. Dispose of contaminated material as prescribed.
Avoid raising dust.

7. Handling and Storage

Handling

Ensure thorough ventilation of stores and work areas. Handle and open container with care. Avoid dust formation.

Protection against fire and explosion:
Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Dust can form an explosive mixture with air. Avoid dust formation. Containers should be earthed during decanting operations.

Storage

Segregate from acids and bases. Segregate from strong oxidizing agents. Segregate from foods and animal feeds.
Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place. Keep only in the original container.

8. Exposure controls and personal protection

Components with workplace control parameters

no exposure standard allocated

Personal protective equipment

Respiratory protection:
Breathing protection if dusts are formed. Wear respiratory protection if ventilation is inadequate.

Hand protection:
Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

General safety and hygiene measures:
Wearing of closed work clothing is required additionally to the stated personal protection equipment. Avoid contact with the skin, eyes and clothing. Do not breathe dust. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

9. Physical and Chemical Properties

Form:	powder
Colour:	white
Odour:	characteristic
pH value:	5.6 (10 g/l, 20 - 25 °C) (as suspension)
Melting temperature:	156 - 161 °C
Flash point:	282 °C
Ignition temperature:	410 °C
Self ignition:	Temperature: 410 °C
Self heating ability:	Currently, no data available
Explosion hazard:	not explosive
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.
Vapour pressure:	< 0.1 hPa (20 °C)
Density:	1.04 g/cm3 (20 °C)
Bulk density:	approx. 330 kg/m3
Solubility in water:	< 1 mg/l (20 °C)
Partitioning coefficient n-octanol/water (log Pow):	> 6 (20 - 25 °C)
volatility/water - air:	(calculated) The substance will not evaporate into the atmosphere from the water surface.
Molar mass:	636.96 g/mol

Other Information:
If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

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

Thermal decomposition:	> 350 °C Thermal decomposition above the indicated temperature is possible. No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
strong acids, strong bases, strong oxidizing agents

Corrosion to metals: Corrosive effects to metal are not anticipated.

Hazardous reactions:
The product may contain explosive fine dust or such dust may be produced by abrasion during transport or product transfer.

Hazardous decomposition products:
nitrogen oxides, carbon oxides, toxic gases/vapours

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

LD50 rat (oral): > 7,750 mg/kg (OECD Guideline 401)
No mortality was observed.

LD50 rabbit (dermal): > 2,000 mg/kg

Irritation

Assessment of irritating effects:
Not irritating to the skin. Not irritating to the eyes.

Primary skin irritation:Study does not need to be conducted.

Primary irritations of the mucous membrane rabbit: non-irritant (Draize test)

Sensitization

Assessment of sensitization:
No data available concerning sensitizing effects.

Carcinogenicity

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

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Acutely harmful for 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) > 100 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 84/449/EEC, C.1, static)

Aquatic invertebrates:
EC50 (24 h) 82 mg/l, Daphnia magna (OECD Guideline 202, part 1)

Aquatic plants:
EC50 (72 h) 45 mg/l, Scenedesmus subspicatus (Guideline 92/69/EEC, C.3)

Microorganisms/Effect on activated sludge:
EC50 (3 h) > 100 mg/l, activated sludge (OECD Guideline 209, aquatic)

Mobility

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

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Poorly biodegradable.

Elimination information:
< 10 % CO2 formation relative to the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic) Poorly biodegradable.

Photodegradation:
$t_{1/2}$ (Indirect photolysis) 1.84 h; OH radical (calculated)
After evaporation or exposure to the air, the product will be rapidly degraded by photochemical processes.

Bioaccumulation potential

Bioaccumulation potential:
Accumulation in organisms is not to be expected. The product has not been tested. The statement has been derived from the properties of the individual components.

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.

13. Disposal Considerations

Incinerate in suitable incineration plant, observing local authority regulations.
The waste codes are manufacturer's recommendations based on the designated use of the product. Other use and special waste disposal treatment on customer's location may require different waste-code assigments.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Domestic transport:

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

Poisons Schedule: Not scheduled

Regulations of the European union (Labelling)

EC-Number: 245-442-7

EEC Directives:

R-phrase(s)

R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

Other regulations

Registration status:

AICS, AU	released / listed

16. Other Information

Recommended use: stabilizer, polyurethane component

Due to the merger of CIBA and BASF Group all Material Safety Data Sheets have been reassessed on the basis of consolidated information. This may have resulted in changes of the Material Safety Data Sheets. In case you have questions concerning such changes please contact us at the address mentioned in Section I.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.