

# **Material Safety Data Sheet**

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: 4,4'-Oxybis(Benzenesulfonyl Hydrazide)

CAS-No.: 80-51-3

Synonym: 4,4'-Oxydibenzenesulfonyl Hydrazide;

P,P'-Oxydibenzenesulfonyl Hydrazide; OBSH; Blowing Agent OBSH; OT; OB

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#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula :  $C_{12}H_{14}N_4O_5S_2$ 

CAS-No. EC-No. Index-No. Concentration

4,4'-Oxybis(Benzenesulfonyl Hydrazide)

80-51-3 201-286-1 >98%

# 3. HAZARDS IDENTIFICATION

Flammable solid. May cause skin, eye and respiratory tract irritation.

May emit irritating and toxic gases if ignited.

### **Eye Contact:**

Avoid eye contact. Prolonged eye contact with dust may cause irritation such as itching, reddening, tearing and burning.

#### **Skin Contact:**

Avoid skin contact. Repeated or prolonged contact with skin may cause irritation such as itching, reddening, tearing and burning. Not absorbed through skin.

#### Ingestion:

Non-toxic.

### Inhalation:

Exposure to dust can cause respiratory tract irritation.

#### 4. FIRST AID MEASURES

#### Skin:

Slightly irritating, avoid skin contact. Infrequent skin contact is not expected to cause damage to skin. Repeated or prolonged contact with skin may cause reddening, itching and inflammation.

### Ingestion:

Nontoxic, ingestion of large amounts is unlikely. Ingestion of small amounts is not likely to cause acute toxicity or internal damage. Possible mild gastrointestinal irritation with nausea, diarrhea and vomiting if large amounts are ingested.

#### Eyes:

Nonirritant, but avoid eye contact. Prolonged eye contact with dust may cause irritation such as itching, reddening, tearing and burning.

#### Inhalation:

Single exposure to dust is not expected to irritate. No incidents of dust inhalation health effects have been reported.

#### 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media:

foam, water spray, dry powder, carbon dioxide

#### Unsuitable extinguishing media for safety reasons:

water jet

## Specific hazards:

carbon dioxide, carbon monoxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black

#### Special protective equipment:

Wear a self-contained breathing apparatus.

#### **Further information:**

The degree of risk is governed by the burning substance and the fire conditions. If exposed to fire, keep containers cool by spraying with water. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Contaminated extinguishing water must be disposed of in accordance with official regulations.

#### 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions:

Do not breathe vapour/aerosol/spray mists. Wear eye/face protection. If exposed to high vapour concentration, leave area immediately. Use personal protective clothing. Handle in accordance with good building materials hygiene and safety practice.

### **Environmental precautions:**

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

### Methods for cleaning up or taking up:

**For small amounts:** Pick up with suitable appliance and dispose of. Dispose of contaminated material as prescribed.

**For large amounts:** Pick up with suitable appliance and dispose of. Dispose of absorbed material in accordance with regulations.

Avoid raising dust.

#### 7. HANDLING AND STORAGE

#### Handling

Avoid dust formation. Wear suitable protective clothing and eye/face protection. Avoid inhalation of dusts/mists/vapours. Breathing must be protected when large quantities are decanted without local exhaust ventilation.

### Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Keep away from sources of ignition - No smoking. Dust can form an explosive mixture with air.

#### Storage

Suitable materials for containers: paper

**Further information on storage conditions:** Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect from direct sunlight.

# Storage stability:

Storage temperature: 5 - 35 °C

The packed product is not damaged by low temperatures or by frost.

The packed product will not be damaged by high temperatures.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

 1305-78-8:
 calcium oxide

 69012-64-2:
 Fumes, silica

 7632-00-0:
 sodium nitrite

 8012-95-1:
 Paraffin oils

80-51-3: 4,4'-Oxydi(benzenesulphonohydrazide)

7757-82-6: sodium sulphate

7440-44-0: carbon

1309-48-4: magnesium oxide

### Personal protective equipment

### Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Particle filter with high efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P3 or FFP3).

### 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:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

#### **Body protection:**

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

# General safety and hygiene measures:

Avoid inhalation of dusts. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Handle in accordance with good building materials hygiene and safety practice. 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. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form: powder
Colour: dark grey
Odour: characteristic

**pH value:** > 12 (2 %(m), 25 °C)

**Boiling point:** not applicable **Flash point:** > 100 °C

Flammability: does not ignite
Lower explosion limit: not applicable
Upper explosion limit: not applicable
Self ignition: not self-igniting

Self heating ability: It is not a substance capable of spontaneous

**Explosion hazard:** heating. not explosive **Fire promoting properties:** not fire-propagating

Vapour pressure: not applicable

**Bulk density:** 1,500 - 2,000 kg/m3

Solubility in water: insoluble

Miscibility with water: immiscible

Hygroscopy: hygroscopic

Viscosity, dynamic: not applicable

Viscosity, kinematic: not applicable

Solids content: 100 %

### 10. STABILITY AND REACTIVITY

#### Conditions to avoid:

See MSDS section 7 - Handling and storage.

### Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

# Substances to avoid:

strong acids, strong bases, strong oxidizing agents

#### Corrosion to metals:

No corrosive effect on metal.

### **Hazardous reactions:**

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

### 11. TOXICOLOGICAL INFORMATION

### **Acute toxicity**

Assessment of acute toxicity:

Of high toxicity after single ingestion.

### Irritation

Assessment of irritating effects:

Corrosive! Damages skin and eyes.

### Other relevant toxicity information

The product has not been tested. The statement has been derived from the properties of the individual components.

### 12. ECOLOGICAL INFORMATION

#### **Additional information**

Other ecotoxicological advice:

Do not allow to enter soil, waterways or waste water channels. The product has not been tested. The

statement has been derived from the properties of the individual components.

# 13. DISPOSAL CONSIDERATIONS

Observe national and local legal requirements.

Residues should be disposed of in the same manner as the substance/product.

#### 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

**IATA** 

Hazard class: 4.1 Packing group: II ID number: UN 3226

Proper shipping name: Diphenyloxide 4,4'-disulfonhydrazide/4,4'-Oxybis(benzenesulfonylhydraide)

IMO

Hazard class: 4.1
Packing group: II
ID number: UN 3226

Proper shipping name: Diphenyloxide 4,4'-disulfonhydrazide/4,4'-Oxybis(benzenesulfonylhydraide)

RID/ADR

Hazard class: 4.1 Packing group: II ID number: UN 3226

Proper shipping name: Diphenyloxide 4,4'-disulfonhydrazide/4,4'-Oxybis(benzenesulfonylhydraide)

### 15. REGULATORY INFORMATION

## **INVENTORY STATUS**

This product is listed in the following chemical inventories

TSCA PICCS DSL AICS

EINECS ECL ENCS ASIA-PAC

# **EUROPEAN/INTERNATIONAL REGULATIONS**

**Risk Phrases** 

R10: Flammable

R22: Harmful if swallowed

R-36/37/38: Slight irritancy, possible with skin & eye contact

**Safety Phrases** 

**\$16:** Keep away from sources of ignition - No smoking.

S45: In case of accident or if you feel unwell, seek medical advice

immediately (showthe label where possible).

**S28A:** After contact with skin, wash immediately with plenty of water

**S-37/39:** Wear suitable gloves and eye/face protection

**US FEDERAL** 

TSCA: CAS# 80-51-3 is listed on the TSCA inventory.

**SARA** 

**CERACLA Hazardous:** None of the chemicals in this material have an RQ.

**Substances and corresponding RQs** 

**SARA Section 302:** None of the chemicals in this product have a TPQ.

**Extremely Hazardous** 

**Substances** 

### **16. OTHER INFORMATION**

#### **Further information**

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