



# SAFETY DATASHEET

## 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

**Productname:** 3,3',4,4'-Benzophenonetetracarboxylic Dianhydride  
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## 2. HAZARDS IDENTIFICATION

### Classification of the GHS

#### PHYSICAL HAZARDS

Not classified

#### HEALTH HAZARDS

Serious eyedamage/eye irritation

Category 2A

Specific target organ toxicity

Respiratory tract irritation

- Single exposure [Category 3]

#### ENVIRONMENTAL HAZARDS

Not classified

### GHS label elements

#### Pictograms or hazard symbols



#### Signal word

Warning

#### Hazard statement

Causes serious eye irritation

May cause respiratory irritation

#### Precautionary statements

##### [Prevention]

Avoid breathing.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/eye protection/face protection.

##### [Response]

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Wash hands thoroughly after handling.

##### [Storage]

Call a POISON CENTER or doctor/physician if you feel unwell.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

##### [Disposal]

Dispose of contents/container through a waste management company authorized by the local government

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/mixture:** Substance  
**Component(s):** 3,3',4,4'-Benzophenonetetracarboxylic Dianhydride  
**Percent:** >99.50%(HPLC)  
**CAS Number:** 2421-28-5  
**Synonyms:** 4,4'-Carbonyldiphthalic Anhydride

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Formula: C<sub>17</sub>H<sub>6</sub>O<sub>7</sub>

### 4. FIRST AID MEASURES

**Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**Skin contact:** Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

**Eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Ingestion:** Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

**Protection of first-aiders:** A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Dry chemical, foam, water spray, carbon dioxide.

**Specific methods:** Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.

**Special protective equipment for firefighters:** When extinguishing fire, be sure to wear personal protective equipment.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Use extra personal protective equipment (P3 filter respirator for toxic particles). Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

**Environmental precautions:** Prevent product from entering drains.

**Methods and materials for containment and cleaning up:** Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

### 7. HANDLING AND STORAGE

#### Handling

**Technical measures:** Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a local exhaust if dust or aerosol will be generated.

**Advice on safe handling:** Avoid contact with skin, eyes and clothing.

#### Storage

**Storage conditions:** Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store under inert gas. Protect from moisture. Store locked up.

Store away from incompatible materials such as oxidizing agents.

**Packaging material:** Law is followed.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:** Install a closed system or local exhaust. Also install safety shower and eye bath.

#### **Personal protective equipment**

**Respiratory protection:** Dust respirator, self-contained breathing apparatus (SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.

**Hand protection:** Impervious gloves.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Eye protection:** Safety goggles. A face-shield, if the situation requires.  
**Skin and body protection:** Impervious protective clothing. Protective boots, if the situation requires.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state (20°C):** Solid  
**Form:** powder  
**Color:** White  
**Odor:** No data available  
**pH:** No data available  
**Melting point/freezing point:** 226 °C  
**Boiling Point/Range:** No data available  
**Flash Point:** No data available  
**Explosive limits**  
**Lower:** 4.2%  
**Upper:** 16%  
**Density:** No data available  
**Solubility:** Very soluble in : DMF  
Soluble in : Acetone THF  
**Autoignition Temperature:** 524°C

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under proper conditions.  
**Reactivity:** No special reactivity has been reported.  
**Conditions to avoid:** Moisture-sensitive  
**Incompatible materials:** oxidizing agents, bases  
**Hazardous Decomposition Products:** Carbon monoxide, Carbon dioxide

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity:** No data available  
**Skin corrosion/irritation:** No data available  
**Serious eye damage/irritation:** No data available  
**Germ cell mutagenicity:** No data available  
**Carcinogenicity:**  
**IARC =** No data available  
**NTP =** No data available  
**Reproductive toxicity:** No data available

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:**  
**Fish:** No data available  
**Crustacea:** No data available  
**Algae:** No data available  
**Persistence / degradability:** No data available  
**Bioaccumulative potential(BCF):** No data available  
**Mobility in soil**  
**log Pow:** No data available  
**Soil adsorption (Koc):** No data available  
**Henry's Law constant(PaM<sup>3</sup>/mol):** No data available

### 13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

### 14. TRANSPORT INFORMATION

**Hazards Class:** Does not correspond to the classification standard of the United Nations  
**UN-No:** Not Listed

### 15. REGULATORY INFORMATION

**Safe management ordinance of dangerous chemical product (State Council announces on January 26, 2002):** Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

### 16. OTHER INFORMATION

This MSDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. Products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.