



## Safety Data Sheet (SDS)

Revision / Review Date: 6/12/15

### 1. Chemical Product and Company Identification

Product Name:	Phthalic Anhydride
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
MSDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	Not available
Synonyms:	2-benzofuran-1,3-dione, Isobenzofuran-1,3-dione
Molecular Formula:	Not available
Molecular Weight via GPC, Mn:	Not available
Product Use:	Process Aids
OSHA Status:	Hazardous
CAS No:	85-44-9

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

### 2. Hazard(s) Identification

#### GHS Classification:

Classification (29CFR1910.1200 Appendix A): Target Organ Effect, Highly Toxic by Inhalation, Harmful by Ingestion, Irritant.

#### GHS Physical Hazard:

None Listed.

#### GHS Health Hazard:

Acute toxicity, Oral (Category 4), H302  
Skin irritation (Category 2), H315  
Serious eye damage (Category 1), H318  
Respiratory sensitization (Category 1),  
H334Skin sensitization (Category 1),  
H317 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

#### GHS Environmental Hazard:

Acute aquatic toxicity (Category 3), H402

#### GHS Labeling Symbol:



#### Signal Word:

Danger

**Hazard Statements:**

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.  
H402 Harmful to aquatic life.

**Precautionary Statements:**

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.  
P280 Wear eye protection/ face protection.  
P280 Wear protective gloves.  
P285 In case of inadequate ventilation wear respiratory protection.  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 + P312 IF INHALED: 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.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.  
P362 Take off contaminated clothing and wash before reuse.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Primary Routes of Entry:**

Inhalation, skin and eyes.

**Target organs:**

Kidney and liver.

**Eye Contact:**

Causes eye irritation

**Skin Contact:**

May be harmful if absorbed through skin. Causes skin irritation

**Ingestion:**

Harmful if swallowed.

**Inhalation:**

May be fatal if inhaled. Causes respiratory tract irritation.

**NFPA Hazard Ratings:**

Health- 4, Flammability - 1, Reactivity - 0

**HMIS Hazard Ratings:**

Health- 4, Flammability - 1, Reactivity - 0

**HMIS limitation statement:**

The HMIS hazard ratings numbers are meant to give a quick indication of the relative hazards associated with the product. All of the information contained in the SDS should be consulted to assist with the safe handling of this material.

**Principal Hazardous Components:**

No.	Component CAS REG.NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TWA	STEL
1	Phthalic Anhydride CAS# 85-44-9	100	2.00 ppm 12.00 mg/m3	Not Available	1.00 ppm	Not Available

### 3. Composition / Information on Ingredients

Weight Percent / Typical	Component Identity	CAS Registry Number
100%	Phthalic Anhydride	85-44-9

### 4. First Aid Measures

<u>Inhalation:</u>	MAY BE FATAL IF INHALED. If breathed in, move person into fresh air. If not breathing give artificial respiration consult a physician.
<u>Eyes:</u>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<u>Skin:</u>	Wash off with soap and plenty of water. Consult a physician.
<u>Ingestion:</u>	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5. Fire-Fighting Measures

<u>Suitable Extinguishing Media:</u>	Water spray, alcohol-resistant foam, dry chemical or CO2.
<u>Special Fire Fighting Procedures:</u>	Wear self-contained breathing apparatus for firefighting if necessary.
<u>Hazardous Combustion Products:</u>	None known.
<u>Unusual fire and explosion hazards:</u>	Not flammable.

### 6. Accidental Release Measures

<u>Steps to be taken in case material is spilled:</u>	Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Keep in suitable, closed containers for disposal. Pick up and arrange disposal without creating dust.
<u>Environmental Disposal Information:</u>	Do not let product enter drains.
<u>Waste Disposal:</u>	Reclaim or dispose of in accordance with local, state, and federal regulations.

### 7. Handling and Storage:

<u>Empty Containers:</u>	Not available.
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Precautions to be taken in handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage:

Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Moisture sensitive.

**8. Exposure Controls / Personal Protection**

Exposure Controls:

Not available.

Respiratory Protection:

Where risk assessment shows air-purifying respirators are appropriate, use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Ventilation:

Provide adequate ventilation.

Protective Gloves:

Handle with chemical resistant gloves.

Eye Protection:

Face shield and safety glasses.

Skin and Body Protection:

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Other Precautions:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Decontamination Facilities:

Eye bath, washing facilities (sinks / showers).

**9. Physical and Chemical Properties**

Physical Form:

Solid- Flakes

Appearance & Odor:

White

Specific Gravity:

Not available.

pH:

2 at 6 g/L at 20 °C (68 °F)

Softening Point, R&B:

Not available.

Solubility in Water:

CA 0.5g/L

Flash Point, TAG CC F:

152 °C (306 °F) - CLOSED CUP

Melting Point:

129 - 133 °C (264 - 271 °F)

Freezing point:

130.9°C

<u>Percent Volatiles (by weight):</u>	Not available.
<u>Evaporation Rate (Water ~ l):</u>	Not available.
<u>Relative density:</u>	1.530 G/CM3 AT 20 °C (68 °F)
<u>Vapor Pressure ( mm Hg):</u>	< 0.01 HPa (< 0.01 mmHg) at 20 °C (68 °F)
<u>Vapor Density (Air ~ l):</u>	Not available.
<u>Boiling Point (°F) Initial:</u>	284 °C (543 °F) - LIT.
<u>Auto ignition Temperature, °C:</u>	570 °C (1,058 °F)
<u>Flammable Limits, %(V):</u>	Lower Explosion Limit: 1.7 %(V) Upper Explosion Limit: 10.4 %(V)

## **10. Stability and Reactivity**

<u>Stability:</u>	This product is stable under normal conditions.
<u>Incompatibility (Materials to Avoid):</u>	Strong acids, strong bases, strong oxidizing agents, strong reducing agents.
<u>Conditions to Avoid:</u>	Avoid moisture.
<u>Hazardous Polymerization:</u>	Hazardous polymerization will not occur.
<u>Hazardous decomposition products:</u>	Hazardous decomposition products formed under fire conditions - Carbon Oxides.

## **11. Toxicological Information**

This material is not listed as a carcinogen or potential carcinogen by NTP, IARC, or OSHA.

No.	Component CAS REG.NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TWA	STEL
1	Phthalic Anhydride CAS# 85-44-9	100	2.00 ppm 12.00 mg/m3	Not Available	1.00 ppm	Not Available

<u>Acute Toxicity:</u>	LD50 Oral - RAT - 1,530 Mg/Kg. REMARKS: BEHAVIORAL: SOMNOLENCE (GENERAL DEPRESSED ACTIVITY). LC50 Inhalation - RAT - 1 H - > 210 MG/M3 INHALATION: IRRITATING TO RESPIRATORY SYSTEM. LD50 Dermal - Rabbit - > 10,000 Mg/Kg
<u>Skin Corrosion/Irritation:</u>	Rabbit - mild skin irritation - 24 h.
<u>Serious Eye Damage/irritation:</u>	Rabbit - moderate eye irritation.
<u>Respiratory or Skin Sensitization:</u>	Not Data Available.
<u>Germ Cell Mutagenicity:</u>	Not Data Available.

<u>Reproductive Toxicity:</u>	Not Data Available.
<u>Specific Target Organ Toxicity (Single Exposure):</u>	No Data Available.
<u>Specific Target Organ Toxicity (Repeated Exposure):</u>	Prolonged or repeated exposure can cause: Liver injury may occur. Kidney injury may occur. Exposure to and/or consumption of alcohol may increase toxic effects. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
<u>Aspiration Hazard:</u>	Not Available.
<u>Symptoms/Injuries After Inhalation:</u>	MAY BE FATAL IF INHALED. Causes respiratory tract irritation.
<u>Symptoms/Injuries After Skin Contact:</u>	May be harmful if absorbed through skin. Causes skin irritation.
<u>Symptoms/Injuries After Eye Contact:</u>	Causes eye irritation.
<u>Symptoms/Injuries After Ingestion:</u>	Harmful if swallowed.
<u>Signs and Symptoms of Exposure:</u>	Not Available.
<u>Additional Information:</u>	Not Available.

## 12. Ecological Information

<u>Toxicity to fish:</u>	LC0 - Oncorhynchus Mykiss (Rainbow Trout) - 5 mg/L - 48 h
<u>Toxicity to algae:</u>	EC50 - Pseudokirchneriella Subcapitata (Green Algae) - 60 – 350 mg/L - 96 h
<u>Persistence and degradability:</u>	No Data Available.
<u>Bioaccumulative potential:</u>	No Data Available.
<u>Mobility in soil:</u>	No Data Available.
<u>PBT and vPvB assessment:</u>	No Data Available.
<u>Other adverse effects:</u>	No Data Available.

## 13. Disposal Considerations

Dispose of waste material in accordance with all local, regional, national, and international regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

## 14. Transport Information

<u>D.O.T. Shipping Name:</u>	UN Number: 2214, Class: 8, Packing Group: III, Proper Shipping Name: Phthalic Anhydride, Marine Pollutant: No, Poison Inhalation Hazard: No
<u>Air - ICAO (international Civil Aviation Organization):</u>	Not dangerous goods.
<u>Sea - IMDG (International Maritime Dangerous Goods):</u>	Not dangerous goods.

## 15. Regulatory Information

**OSHA Hazards:** Target organ effect, highly toxic by inhalation, harmful by ingestion. Irritant

**DSL STATUS:** All components of this product are on the Canadian DSL list.

### **SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, section 302.

SARA 313 Components: Phthalic Anhydride CAS-No. 85-44-9 Revision Date 1991-07-01

SARA 311/312 Hazards: Acute health hazard, chronic health hazard

### **Massachusetts Right To Know Components:**

PTHALIC ANHYDRIDE CAS-NO. 85-44-9 REVISION DATE 1991-07-01

### **Pennsylvania Right To Know Components:**

PTHALIC ANHYDRIDE CAS-NO. 85-44-9 REVISION DATE 1991-07-01

### **New Jersey Right To Know Components:**

PTHALIC ANHYDRIDE CAS-NO. 85-44-9 REVISION DATE 1991-07-01

### **California PROP. 65 Components:**

This product does not contain any chemicals known to state of California to cause cancer, birth, or any other reproductive defects.

## 16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.