

# Safety Data Sheet

Revision Date: 10/21/2019

## Section 1: Chemical Identification

### 1.1 Chemical Identification

Product Name: 2-Phthalaldehyde  
 Alternative Name: 1,2-Benzenedicarboxaldehyde  
 Catalog Number: P-680

### 1.2 Relevant Uses and Uses Advised Against

Recommended use: This product is not for use in humans. It is for research purposes only.

### 1.3 Supplier Contact Information

Distributed by: Gold Biotechnology, Inc.  
 1328 Ashby Rd.  
 St. Louis, MO 63132  
 Phone: (314) 890-8778  
 Fax: (314) 890-0503  
 Email: [contactgoldbio86@goldbio.com](mailto:contactgoldbio86@goldbio.com)

### 1.4 Emergency Contact Information

Emergency Phone: (800)248-7609 (Monday-Friday, 9:00 a.m. – 5:00 p.m. CST)

## Section 2: Hazardous Information

### 2.1 GHS Classification

Acute Toxicity, Oral (Category 3)  
 Skin Corrosion (Category 1B)  
 Serious Eye Damage (Category 1)  
 Skin Sensitizer (Category 1)  
 Specific Target Organ Toxicity, Single Exposure (Category 3)  
 Acute Aquatic Toxicity (Category 1)  
 Chronic Aquatic Toxicity (Category 1)

### 2.2 GHS Label Elements, Including Precautionary statements



DANGER!

### 2.3 Hazard Statements

H301: Toxic if swallowed  
 H314: Causes severe skin burns and eye damage

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- H317: May cause an allergic skin reaction  
H335: May cause respiratory irritation  
H410: Very toxic to aquatic life with long lasting effects

## **2.4 Precautionary Statements**

- P260: Do not breathe dust/fume/gas/mist/vapours/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 protective gloves/protective clothing/eye protection/face protection  
P301+310+330: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician;  
Rinse mouth  
P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+312: IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell  
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
P310: Immediately call a POISON CENTER or doctor/physician  
P333+313: If skin irritation or a rash occurs: Get medical advice/attention  
P363: Wash contaminated clothing before reuse  
P391: Collect spillage  
P403+233: 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

## **2.6 Target Organs**

Respiratory system

# **Section 3: Composition/Information on Ingredients**

## **3.1 Composition**

Identity:	2-Phthalaldehyde
IUPAC:	phthalaldehyde
Synonyms:	1,2-Benzenedicarboxaldehyde
CAS Number:	643-79-8
Molecular Formula:	C <sub>8</sub> H <sub>6</sub> O <sub>2</sub>
Molecular Weight:	134.13 g/mol

# **Section 4: First Aid Measures**

## **4.1 Detailed First Aid Measures**

Inhalation: If breathed in, move person into fresh air. If not breathing, give

- artificial respiration. Consult a physician.
- Skin:** Immediately wash skin copiously with soap and water. Take victim immediately to hospital. Consult a physician.
- Eye:** Immediately rinse out with water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.
- Ingestion:** Wash out mouth with water. Drink plenty of water. Consult a physician. Never give anything by mouth to an unconscious person.
- Notes to Physician:** Treat symptomatically and supportively.

#### **4.2 Most Important Symptoms And Effects, Either Acute Or Delayed**

The most important known symptoms and effects are described in the labeling (see section 2). And /or in section 11.

#### **4.3 Indication of immediate medical attention and special treatment needed**

Not available

## **Section 5: Fire Fighting Measures**

### **5.1 Conditions of flammability:**

Not flammable or combustible.

### **5.2 Suitable extinguishing media:**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **5.3 Specific hazards arising from the chemical**

During a fire, highly toxic gases may be generated by thermal decomposition or combustion – Carbon Oxides.

### **5.4 Specific protective actions for fire-fighters:**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## **Section 6: Accidental Release Measures**

### **6.1 Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

### **6.2 Environmental precautions:**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up:**

Soak up with absorbent material, discard.

## **Section 7: Handling and Storage**

### **7.1 Precautions for safe handling:**

Always wear personal protective equipment (PPE, see section 8).

### **7.2 Conditions for safe storage, including and incompatibilities:**

Keep container tightly closed.

Store at 4°C. Protect from light.

## **Section 8: Exposure Controls / Personal Protection**

### **8.1 Control Parameters:**

Contains no substances with occupational exposure limit values.

### **8.2: Appropriate engineering controls:**

Contains no substances with occupational exposure limit values.

### **8.3 Personal Protective Equipment (PPE):**

**Eye/Face Protection:** Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin Protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique - without touching outer surface of glove - to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Other Protective Clothing or Equipment:** Wear appropriate protective clothing to prevent exposure.

## **Section 9: Physical and Chemical Properties**

### **9.1 General chemical and physical properties**

<b>Appearance:</b>	Light Yellow Powder
<b>Odor:</b>	Not Available
<b>Odor Threshold:</b>	Not Available
<b>pH:</b>	Not Available
<b>Melting Point:</b>	55 - 56°C
<b>Freezing Point:</b>	55 - 56°C

<b>Boiling Point/Range:</b>	83°C
<b>Flash Point:</b>	132°C
<b>Evaporation Rate:</b>	Not Available
<b>Lower Explosion Limit:</b>	Not Available
<b>Upper Explosion Limit:</b>	Not Available
<b>Vapor Pressure:</b>	0.00 hPa at 20°C - OECD Test Guideline 104
<b>Vapor Density:</b>	Not Available
<b>Relative Density:</b>	Not Available
<b>Solubility:</b>	Water: 37.7 g/L at 20°C
<b>Partition Coefficient n-octanol/water:</b>	log Pow: 0.99 at 30°C - OECD Test Guideline 117
<b>Auto-Ignition Temperature:</b>	Not Available
<b>Decomposition Temperature:</b>	Not Available
<b>Viscosity:</b>	Not Available

## **Section 10: Stability and Reactivity Data**

### **10.1 Reactivity:**

Not available

### **10.2 Chemical Stability:**

Stable under recommended storage conditions.

### **10.3 Possibility of hazardous reactions:**

Not available.

### **10.4 Conditions to avoid:**

Incompatible materials.

### **10.5 Incompatible materials:**

Strong oxidizing agents, Amines, Strong bases.

### **10.6 Hazardous decomposition products:**

Hazardous decomposition products formed under fire conditions. - Carbon Oxides.

## **Section 11: Toxicological Information**

### **11.1 Toxicological effects**

#### **Acute toxicity:**

2-Phthalaldehyde Oral: LD<sub>50</sub> (Rat) 178 mg/kg

2-Phthalaldehyde Skin: LD<sub>50</sub> (Rat) 2 g/kg

**Skin corrosion/irritation:**

Skin (Rabbit) Result: Causes burns. - 4h (OECD Test Guideline 404)

**Respiratory or skin sensitization:**

Maximisation Test (Guinea pig) Result: Causes sensitization. (OECD Test Guideline 406)

**Germ cell mutagenicity:**

Ames test - Result: negative

**Carcinogenicity:**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:**

Not available.

**STOT-single exposure:**

May cause respiratory irritation.

**STOT-repeated exposure:**

Not available.

**Aspiration hazard:**

Not available.

**Likely routes of exposure:**

Respiratory organs, mouth, skin, and eyes.

**Symptoms of exposure:**

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional Information:**

RTECS: TH6950000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

## **Section 12: Ecological Information**

### **12.1 Toxicity:**

LC<sub>50</sub> - (*Oncorhynchus mykiss*) - 0.07 mg/l-96h Remarks: (ECOTOX Database)  
Static test EC<sub>50</sub> - a (*Daphnia magna*) - 0.11 mg/L - 48h (OECD Test Guideline 202)  
Static test EC<sub>50</sub> - (*Pseudokirchneriella subcapitata*)-0.22 mg/L - 96h Remarks: (ECOTOX Database)  
Static test EC<sub>50</sub> - activated sludge - 76.6 mg/L - 3h(OECD Test Guideline 209)  
Static test NOEC - activated sludge - 9.8 mg/L - 3h(OECD Test Guideline 209)

#### **12.2 Persistence and degradability:**

aerobic - Exposure time (28 d) Result: 7% - Not readily biodegradable. (OECD Test Guideline 301B)

#### **12.3 Bioaccumulative potential:**

Not available.

#### **12.4 Mobility in soil:**

Not available.

#### **12.5 Other adverse effects:**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects. Discharge into the environment must be avoided.

## **Section 13 Disposal Considerations**

Dispose of product in accordance with local rules and regulations.

## **Section 14: Transport Information**

### **14.1 US Department of Transportation (DOT)**

UN Number: 2923  
Proper shipping name: Corrosive solids, toxic, n.o.s. (o-Phthalaldehyde)  
Class: 8 (6.1)  
Packing Group: II  
Marine Pollutant: Yes

### **14.2 International Maritime Dangerous Goods (IMDG):**

UN Number: 2923  
Proper shipping name: Corrosive solids, toxic, n.o.s. (o-Phthalaldehyde)  
Class: 8 (6.1)  
Packing Group: II  
Marine Pollutant: Yes

### **14.2 International Air Transportation Association (IATA)**

UN Number: 2923  
Proper shipping name: Corrosive solids, toxic, n.o.s. (o-Phthalaldehyde)  
Class: 8 (6.1)  
Packing Group: II

**Marine Pollutant:** Yes

## **Section 15: Regulatory Information**

### **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:**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### **SARA 311/312 Hazards:**

Acute Health Hazard

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

2-Phthalaldehyde

CAS - No.

643-79-8

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

2-Phthalaldehyde

CAS - No.

643-79-8

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

2-Phthalaldehyde

CAS - No.

643-79-8

### **California Prop. 65 Components:**

This product does not contain any chemical known to the State of California to cause cancer, birth, or any other reproductive defects.

## **Section 16: Other Information**

While Gold Biotechnology, Inc. believes the information contained herein to be true and accurate, it has relied on information provided by others. Gold Biotechnology, INC. makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or with respect to the results to be obtained from the use of the product. Gold Biotechnology, Inc. disclaims all liability with respect to the use of this product, including without limitation, liability for injury to the user or third-party persons.

### **Preparation Information**

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Content/Marketing Department

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