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MSDS Number: **P4230** \* \* \* \* \* *Effective Date: 11/17/99* \* \* \* \* \* *Supersedes: 12/08/96*

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**MSDS** MATERIAL SAFETY DATA SHEET  
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Canada)

**From:** Mallinckrodt Baker, Inc  
222 Red School Lane  
Phillipsburg, NJ 08865

Emergency Telephone Number: 908-859-2151

**CHEMTREC:** 800-424-9300 (USA)  
703-527-3887(Outside USA and

**CANUTEC:** 613-996-6666

**NOTE:** Use CHEMTREC and CANUTEC  
phone numbers only in the event  
of a chemical emergency.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

**J. T. B A K E R**

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## **o-PHTHALALDEHYDE**

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### **1. Product Identification**

**Synonyms:** 1,2-Benzenedicarboxaldehyde; OPA; o-Phthalic Aldehyde; o-Phthaldialdehyde

**CAS No.:** 643-79-8

**Molecular Weight:** 134.14

**Chemical Formula:** C<sub>8</sub>H<sub>6</sub>O<sub>2</sub>

**Product Codes:** U041

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### **2. Composition/Information on Ingredients**

Ingredient -----	CAS No -----	Percent -----	Hazardous -----
o-Phthalaldehyde	643-79-8	90 - 100%	Yes

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## 3. Hazards Identification

### Emergency Overview

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**WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES SEVERE IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT. MAY CAUSE ALLERGIC SKIN REACTION.**

### Potential Health Effects

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Information on the human health effects from exposure to this substance is limited.

#### **Inhalation:**

Inhalation can cause severe irritation of mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. High concentrations may cause lung damage.

#### **Ingestion:**

Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

#### **Skin Contact:**

Causes irritation to skin. Symptoms include redness, itching, and pain. May cause allergic skin reactions.

#### **Eye Contact:**

Causes irritation, redness, and pain.

#### **Chronic Exposure:**

No information found.

#### **Aggravation of Pre-existing Conditions:**

No information found.

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## 4. First Aid Measures

#### **Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

#### **Ingestion:**

Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

#### **Skin Contact:**

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse.

Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.

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## 5. Fire Fighting Measures

**Fire:**

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

**Explosion:**

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

**Fire Extinguishing Media:**

Water spray, dry chemical, alcohol foam, or carbon dioxide.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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## 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

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## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

None established.

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:**

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

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## 9. Physical and Chemical Properties

**Appearance:**

Light yellow crystalline solid.

**Odor:**

No information found.

**Solubility:**

Negligible.

**Specific Gravity:**

No information found.

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

No information found.

**Melting Point:**

56C (133F)

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

No information found.

**Evaporation Rate (BuAc=1):**

No information found.

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## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

Carbon dioxide and carbon monoxide may form when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Strong oxidizers.

**Conditions to Avoid:**

Heat, incompatibles.

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## 11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
o-Phthalaldehyde (643-79-8)	No	No	None

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## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

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## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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## 14. Transport Information

Not regulated.

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## 15. Regulatory Information

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-----\Chemical Inventory Status - Part 1\-----
-
Ingredient                                     TSCA  EC   Japan  Australia
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o-Phthalaldehyde (643-79-8)                 Yes  Yes  Yes    Yes

-----\Chemical Inventory Status - Part 2\-----
-
Ingredient                                     Korea  --Canada--
                                     DSL   NDSL   Phil.
-----
o-Phthalaldehyde (643-79-8)                 No    Yes   No     Yes

-----\Federal, State & International Regulations - Part 1\-----
-
                                     -SARA 302-   -----SARA 313-----
Ingredient          RQ    TPQ    List  Chemical
Catg.
-----
o-Phthalaldehyde (643-79-8)                 No    No    No     No

-----\Federal, State & International Regulations - Part 2\-----
-
Ingredient          CERCLA   -RCRA-   -TSCA-
                                     261.33  8 (d)
-----
o-Phthalaldehyde (643-79-8)                 No     No     No
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Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
SARA 311/312: Acute: Yes      Chronic: Yes      Fire: No      Pressure: No  
Reactivity: No      (Pure / Solid)

**Australian Hazchem Code:** No information found.

**Poison Schedule:** No information found.

### WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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## 16. Other Information

**NFPA Ratings:** Health: **2** Flammability: **1** Reactivity: **0**

**Label Hazard Warning:**

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES SEVERE IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT. MAY CAUSE ALLERGIC SKIN REACTION.

**Label Precautions:**

Avoid contact with eyes, skin and clothing.

Avoid breathing dust.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

**Label First Aid:**

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person. In all cases, get medical attention.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No changes.

**Disclaimer:**

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**Prepared by:** Strategic Services Division  
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