

## Material Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Meldrums acid  
**Synonyms:** 2,2-Dimethyl-1,3-dioxane-4,6-dione  
**Company Identification:** PI Chemicals Ltd.  
Room 512, Building 1  
88 Cailun Road, Zhangjiang Hi-Tech park,  
Pudong New Area, Shanghai 201203, China  
**Telephone Number:** 86-21-58953700  
**Fax Number:** 86-21-58953701

### Section 2 - Product Information

**Catalog Number:** PI-13630  
**CAS Number:** 2033-24-1  
**MDL Number:** MFCD00006638  
**EC Number:** 217-992-8  
**Purity:** 98.0%

### Section 3 - Physical and Chemical Properties

**Physical state:** Crystal  
**Color:** White  
**Odor:** Not available  
**Molecular Formula:** C<sub>6</sub>H<sub>8</sub>O<sub>4</sub>  
**Molecular Weight:** 144.13  
**Freezing/Melting Point:** 93-97 deg C  
**Boiling Point:** Not available  
**Flash Point:** Not available  
**Autoignition Temperature:** Not available  
**Refractive Index (n<sub>D</sub>20):** Not available  
**Density:** Not available  
**Decomposition Temperature:** Not available  
**Solubility:** Not available

### Section 4 - Hazards Identification

**Eye:** Causes eye irritation.

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<b>Skin:</b>	Causes skin irritation. Harmful if absorbed through the skin.
<b>Ingestion:</b>	May cause irritation of the digestive tract. Toxic if swallowed.
<b>Inhalation:</b>	May be harmful if inhaled. Causes respiratory tract irritation.

### **Section 5 - First Aid Measures**

<b>Eye:</b>	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
<b>Skin:</b>	Get medical aid. Flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops and persists.
<b>Ingestion:</b>	Get medical aid immediately. Wash mouth out with water.
<b>Inhalation:</b>	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

### **Section 6 - Stability and Reactivity**

<b>Chemical Stability:</b>	Stable under normal temperatures and pressures.
<b>Materials to avoid:</b>	Strong oxidizing agents.
<b>Conditions to Avoid:</b>	Incompatible materials.
<b>Hazardous Decomposition Products:</b>	Carbon monoxide, carbon dioxide.
<b>Hazardous Polymerization:</b>	Will not occur.

### **Section 7 - Handling and Storage**

<b>Handling:</b>	Avoid breathing dust, vapor, mist, or gas. Keep container tightly closed. Avoid contact with skin and eyes. Wash thoroughly after handling. Mechanical exhaust required.
<b>Storage:</b>	Store in a cool, dry well ventilated place away from sources of heat and incompatible substances. Keep container tightly closed when not in use. Store at 2-8 deg C

### **Section 8 - Personal Protection**

<b>Eyes:</b>	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Respirators:</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### **Section 9 - Fire and Explosion Hazard Data**

<b>General Information:</b>	As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and protective clothing to prevent contact with skin
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and eyes.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

### ***Section 10 - Accidental Release Measures***

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container.

### ***Section 11 - Toxicological Information***

**RTECS#:** CAS#2033-24-1: Not available

**LD50/LC50:** RTECS: Not available.

**Carcinogenicity:** Meldrums acid - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

### ***Section 12 - Environmental information***

Not available

### ***Section 13 - Disposal Consideration***

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

### ***Section 14 - Transport Information***

**IATA:** This substance is considered to be non-hazardous for transport.

**IMO:** This substance is considered to be non-hazardous for transport.

**RID/ADR:** This substance is considered to be non-hazardous for transport.

### ***Section 15 - Regulatory Information***

#### ***European/International Regulations***

European Labeling in Accordance with EC Directives

Hazard Symbols: Xi

Indication of Danger: Irritant

Risk Phrases:

R 22: Harmful if swallowed.

Safety Phrases:

S 24/25: Avoid contact with skin and eyes.

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

WGK (Water Danger/Protection)

CAS#2033-24-1: 2

Canada

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CAS#2033-24-1: Not available

*US Federal*

**TSCA**

CAS# 2033-24-1 is not listed on the TSCA Inventory. It is for research and development use only.

***Section 16 - Additional Information***

***MSDS Creation Date:*** March 25, 2006

***Update:*** February 20, 2008

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