

**Material Safety Data Sheet**

Version 3.0  
Revision Date 08/22/2008  
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**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Acetylenedicarboxylic acid

Product Number : 01090  
Brand : Fluka

Company : Sigma-Aldrich Canada, Ltd  
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OAKVILLE ON L6H 6J8  
CANADA

Telephone : +19058299500  
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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Formula : C<sub>4</sub>H<sub>2</sub>O<sub>4</sub>  
Molecular Weight : 114.06 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
<b>Butynedioic acid</b>			
142-45-0	205-536-0	-	-

**3. HAZARDS IDENTIFICATION****WHMIS Classification**

D1B Toxic Material Causing Immediate and  
D2B Serious Toxic Effects

Toxic by ingestion  
Moderate skin irritant  
Moderate respiratory irritant  
Moderate eye irritant

**HMIS Classification**

Health Hazard: 2  
Flammability: 0  
Physical hazards: 0

**Potential Health Effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation.  
**Ingestion** Toxic if swallowed.

**4. FIRST AID MEASURES****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING MEASURES****Flammable properties**

Flash point no data available

Ignition temperature no data available

**Suitable extinguishing media**

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

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods for cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****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.

Recommended storage temperature: 2 - 8 °C

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment****Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (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).

**Hand protection**

Handle with gloves.

**Eye protection**

Safety glasses

**Skin and body protection**

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

**Hygiene measures**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form crystalline

Colour beige

**Safety data**

pH no data available

Melting point 180 - 187 °C (356 - 369 °F)

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility no data available

**10. STABILITY AND REACTIVITY****Storage stability**

Stable under recommended storage conditions.

**Materials to avoid**

Bases, Reducing agents, Oxidizing agents

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

LD50 Oral - mouse - 63 mg/kg

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

**Chronic exposure**

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.

## Potential Health Effects

<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Eyes</b>	Causes eye irritation.
<b>Ingestion</b>	Toxic if swallowed.

## 12. ECOLOGICAL INFORMATION

### Elimination information (persistence and degradability)

no data available

### Ecotoxicity effects

no data available

### Further information on ecology

no data available

## 13. DISPOSAL CONSIDERATIONS

### Product

Observe all federal, state, and local environmental 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.

### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### DOT (US)

UN-Number: 2811 Class: 6.1 Packing group: III  
Proper shipping name: Toxic solids, organic, n.o.s. (Butynedioic acid)  
Marine pollutant: No  
Poison Inhalation Hazard: No

### IMDG

UN-Number: 2811 Class: 6.1 Packing group: III EMS-No: F-A, S-A  
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Butynedioic acid)  
Marine pollutant: No

### IATA

UN-Number: 2811 Class: 6.1 Packing group: III  
Proper shipping name: Toxic solid, organic n.o.s. (Butynedioic acid)

## 15. REGULATORY INFORMATION

### DSL Status

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

Butynedioic acid

CAS-No.  
142-45-0

### WHMIS Classification

D1B Toxic Material Causing Immediate and  
D2B Serious Toxic Effects

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Moderate respiratory irritant

Moderate eye irritant

## 16. OTHER INFORMATION

### Further information

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