

# MATERIAL SAFETY DATA SHEET

## Chemical Product

Product Name: GLUTARIC ACID

CAS#: 110-94-1

Synonym: Pentanedioc Acid.

Chemical Name: Glutaric Acid

Chemical Formula: C<sub>5</sub>H<sub>8</sub>O<sub>4</sub>

## Composition and Information on Ingredients

| Name          | S.K.U    | % by Weight |
|---------------|----------|-------------|
| GLUTARIC ACID | GCS-8295 | 100         |

## Hazards Identification

Potential Acute Health Effects: Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

Potential Chronic Health Effects: Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL

TOXICITY: Not available.

## First Aid Measures

### Eye Contact:

Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.

### Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.  
Wash contaminated clothing before reusing.

### Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

### Inhalation:

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation: Not Available.

**Ingestion:**

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:**

**Fire and Explosion Data**

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

**Products of Combustion:**

When heated to decomposition, it emits acrid smoke and fumes.

Fire Hazards in Presence of Various Substances: Not available.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

**Accidental Release Measures**

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate

through the sanitary system.

## Handling and Storage

### Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

### Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

## Exposure Controls/Personal Protection

### Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Personal Protection:

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

## Physical and Chemical Properties

Physical state and appearance: Solid. (Crystalline solid.)

Odor : Not available.

Taste : Not available.

Molecular Weight : 132.12 g/mole

Color : Colorless.

pH (1% soln/water) : Not available.

Boiling Point : 200°C (392°F)

Melting Point : 98°C (208.4°F)

Critical Temperature : Not available.

Specific Gravity : 1.429 (Water = 1)

Vapor Pressure : 0 kPa (@ 20°C)

|                                                                                            |                                                           |
|--------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Vapor Density                                                                              | : 1.05 (Air = 1)                                          |
| Volatility                                                                                 | : Not available.                                          |
| Odor Threshold                                                                             | : 0.04 ppm                                                |
| Water/Oil Dist. Coeff.                                                                     | : Not available.                                          |
| Ionicity (in Water)                                                                        | : Not available.                                          |
| Dispersion Properties                                                                      | : See solubility in water, diethyl ether.                 |
| Solubility                                                                                 | : Easily soluble in diethyl ether. Soluble in cold water. |
| Freely soluble in absolute alcohol, benzene, chloroform. Slightly soluble petroleum ether. |                                                           |
| Soluble in concentrated sulfuric acid.                                                     |                                                           |

## Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials.

Incompatibility with various substances: Reactive with oxidizing agents, acids, alkalis.

Corrosivity: Non-corrosive in presence of glass.

### Special Remarks on Reactivity:

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

## Toxicological Information

Routes of Entry: Not Available.

Toxicity to Animals: Acute oral toxicity (LD50): 6000 mg/kg [Rat].

Chronic Effects on Humans: Not available.

### Other Toxic Effects on Humans:

Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

### Special Remarks on Toxicity to Animals: Not

available. Special Remarks on Chronic Effects

on Humans: Not available. Special Remarks on

other Toxic Effects on Humans:

Potential Acute Health Effects: Skin: May cause skin irritation. No information regarding skin irritation was found. Eyes: May cause eye irritation. No information was found regarding eye irritation. Inhalation: Inhalation of dust may cause respiratory tract irritation. Ingestion: May cause digestive tract irritation. The toxicological properties of this substance have not been fully investigated.

Toxicological Data on Ingredients: Glutaric acid: ORAL (LD50): Acute: 6000 mg/kg [Rat].

## Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

### Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

### Toxicity of the Products of Biodegradation:

The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

## Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Transformation Information

Land transport (ADR-RID)

General information: Not regulated.

Sea transport (IMDG) [English only]

General information: Not regulated.

Air transport (ICAO-IATA) [English only]

General information: Not regulated.

## Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Glutaric acid

Other Regulations: Not Available.

**Other Classifications:**

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): R36/38- Irritating to eyes and skin. S2- Keep out of the reach of children.

S46- If swallowed, seek medical advice immediately and show this container or label.

**HMIS (U.S.A.):**

Health Hazard: 2

**Fire Hazard: 1**

Reactivity: 0

**Personal Protection: E**

National Fire Protection Association (U.S.A.):

**Health: 2**

Flammability: 1

**Reactivity: 0**

Specific hazard:

**Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

**Additional Information**

References: Not available.

Other Special Considerations: Not available.

***Disclaimer:***

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