

# Material Safety Data Sheet

## Itaconic Acid

### Section 1: Chemical Product and Company Identification

**Product Name:** Itaconic Acid  
**Chemical Name:** Itaconic Acid  
**CAS No.:** 97-65-4  
**EINECS No.:** 202-599-6  
**Customs Tariff No. :** 29171900  
**Synonym Name:** Methylenesuccinic acid,  
**Chemical Formula:** C<sub>5</sub>H<sub>6</sub>O<sub>4</sub>

**Contact Information:**  
**Chemtrade International**  
Rm. 2-501, Huaxia Zonghe Building, No. 410,  
Jingangshan Road, Qingdao Development Zone,  
Qingdao, Shandong, China 266555  
**International Sales:**  
**Tel:** 0086-532-86109530  
**Fax:** 0086-532-86893005

### Section 2: Composition and Information on Ingredients

#### Composition:

Name	CAS No.	EINECS No.	%by weight
Itaconic Acid	97-65-4	202-599-6	99.6

#### Toxicological Data on Ingredients:

**LD50:** No information found

**LC50:** No information found

### Section 3: Hazards Identification

#### Potential Acute Health Effects:

Inhalation: May cause irritation to the respiratory tract, with symptoms of Bronchitis

Ingestion: May cause abdominal cramps, nausea, vomiting, diarrhea

Skin Contact: Slightly irritating.

Eye Contact: May cause irritation.

#### Potential Chronic Health Effects:

Carcinogenic Effects: No information found

Mutagenic Effects: No information found

Developmental Toxicity: No information found

Teratogenic Effects: No information found

Repeated or prolonged exposure is not known to aggravate medical condition.

### Section 4: First Aid Measures

#### Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek a medical attention.

#### Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Seek a medical attention.

**Serious Skin Contact:** No information found

#### 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:** No information found

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

### Section 5: Fire and Explosion Data

**Flammability of the Product:** At a higher temperature.

**Auto-Ignition Temperature:** No information found

**Flash Points:** No information found

**Flammable Limits:** No information found

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>) and water(H<sub>2</sub>O).

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

Non-flammable in presence of open flames and sparks, of heat, of oxidizing materials, of reducing materials, of combustible materials, of moisture.

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

Risks of explosion of the product in presence of mechanical impact: No information found

Risks of explosion of the product in presence of static discharge: No information found

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam.

**Special Remarks on Fire Hazards:** No information found

**Special Remarks on Explosion Hazards:** No information found

### Section 6: Accidental Release Measures

**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate. 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. Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

### Section 7: Handling and Storage

**Precautions:**

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Do not allow contact with water. Keep from contact with moist air and steam.

**Storage:**

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

### Section 8: 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. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

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

Splash goggles. Full suit. Dust 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:** No information found

**Respirators:** 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: Physical and Chemical Properties

**Physical state and appearance:** Solid. (white crystals)

**Molecular Weight:** 130.1 g/mole

**Odor:** Odorless.

**Color:** white crystals.

**Boiling Point:** 268°C (sublimes)

**pH (5% water):** 1.5-2.0

**Melting Point:** 167-169°C

**Pka1:** 3.824

**Pka2:** 5.658

**Specific Gravity:** 1.573 (Water = 1)

**Vapor Pressure:** No information found  
**Vapor Density (Air=1):** No information found  
**Odor Threshold:** No information found  
**Water/Oil Dist. Coeff.:** No information found  
**Iconicity (in Water):** No information found  
**Dispersion Properties:** See solubility in water, methanol.  
**Evaporation Rate (BuAc=1):** No information found  
**Solubility:** solvents.

#### Section 10: Stability and Reactivity Data

**Stability:** The product is stable at room temperature in closed container under normal storage and handling conditions.  
**Instability Temperature:** No information found  
**Conditions of Instability:** No information found  
**Incompatibility with various substances:** Reactive with oxidizing agents.  
**Conditions to Avoid:** Incompatible materials, strong oxidizing agents, basis.  
**Corrosivity:** Non-corrosive in presence of glass.  
**Special Remarks on Corrosivity:** No information found  
**Polymerization:** No.

#### Section 11: Toxicological Information

**Routes of Entry:** Eye contact .  
**Toxicity to Animals:**  
LD50: No information found  
LC50: No information found  
**Special Remarks on Reactivity:** No information found  
**Chronic Effects on Humans:** No information found  
**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.  
**Special Remarks on Chronic Effects on Humans:** No information found  
**Special Remarks on other Toxic Effects on Humans:** No information found

#### Section 12: Ecological Information

**Ecotoxicity:** No information found  
**Special Remarks on Toxicity to Animals:** No information found  
**BOD<sub>5</sub> and COD:** No information found  
**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 products of degradation are more toxic.  
**Special Remarks on the Products of Biodegradation:** No information found

#### Section 13: Disposal Considerations

**Waste Disposal:** Follow applicable local regulation.

#### Section 14: Transport Information

**US DOT:** Not regulated as a hazardous material  
**Identification:** No information found  
**Special Provisions for Transport:** No information found

#### Section 15: Other Regulatory Information

**US FEDERAL**  
**TSCA**  
CAS# 97-65-4 is listed on the TSCA inventory.  
**Health & Safety Reporting List**  
None of the chemicals are on the Health & Safety Reporting List.  
**Chemical Test Rules**  
None of the chemicals in this product are under a Chemical Test Rule.  
**Section 12b**  
None of the chemicals are listed under TSCA Section 12b.  
**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**

None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

**Section 313** No chemicals are reportable under Section 313.

**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 97-65-4 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

XI

**Risk Phrases:**

R 36/37/38 Irritating to eyes, respiratory system and skin.

**Safety Phrases:**

S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**

CAS# 97-65-4: 0

**Canada - DSL/NDSL**

CAS# 97-65-4 is listed on Canada's DSL List.

**Canada – WHMIS**

This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

**Section 16: Other Information**

**Other Special Considerations:** No information found

**Product Use:**

Production of organic synthetic materials such as synthetic resins, synthetic fiber, plastic, rubber, surface-active agents.

**Revision Information:**

**DOT Classification:** Not a DOT controlled material.

MSDS Creation date: June 1<sup>st</sup>, 2006, Revision date: January 1<sup>st</sup>, 2007

**EMERGENCY CONTACT:**

0086-533-2187500

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