

MATERIAL SAFETY DATA SHEETDate Updated: 29.12.2006
Version: 3.0

Glutaric acid****** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ******MSDS Name: **Glutaric acid**

Chemical Name: Glutaric acid, 99%

Company Identification: Dalian Onichem Co., Ltd.

218-220, No. 2 Gaoxin Street, Qixianling, Dalian 116023, P.R. China

Tel: 86-411-8479 4022, Fax: 86-411-8479 4077

For emergencies, call CHEMTREC 1-800-424-9300 or 1-202-483-7616

****** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ******

CAS#	Chemical Name	%	EINECS#
110-94-1	Glutaric acid	99%	203-817-2

****** SECTION 3 - HAZARDS IDENTIFICATION ********EMERGENCY OVERVIEW**

Caution! may be harmful if swallowed. may cause irritation to skin, eyes, and respiratory tract.

POTENTIAL HEALTH EFFECTS

Eye Contact: May cause irritation, redness and pain.

Skin Contact: May cause irritation.

Ingestion: No information found, but based on animal studies, substance is presumed to be low in oral toxicity. May cause irritation to the gastro-intestinal tract.

Inhalation: May cause irritation to the respiratory tract.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: No information found.

****** SECTION 4 - FIRST AID MEASURES ******

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

Skin Contact: Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing before re-use.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

****** SECTION 5 - FIRE FIGHTING MEASURES ********General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Reacts with most metals in the presence of moisture, liberating extremely flammable hydrogen gas.**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.**NFPA Rating:** (estimated) Health: 3; Flammability: 1; Instability: 0****** SECTION 6 - ACCIDENTAL RELEASE MEASURES ********General Information:** Use proper personal protective equipment as indicated in Section 8.**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

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Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Discard contaminated shoes. Use only with adequate ventilation. Do not breathe vapor or mist.

Storage: Store in a cool, dry place. Keep container closed when not in use.

****** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ********Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes: Wear chemical splash goggles and face shield.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

****** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ******

Appearance: White crystal powder

Odor: Not available.

pH: Acidic .

Vapor Pressure: Not available

Vapor Density: >1.0

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 302 deg C.

Freezing/Melting Point: 97 deg C

Flash Point: Not available.

Explosion Limits: Not available.

Autoignition Temperature: Not applicable.

Decomposition Temperature: Not available.

Water Solubility: 63.9g/100ml @20 deg C.

Specific Gravity/Density: 1.429

Molecular Formula: C5H8O4

Molecular Weight: 132.12

****** SECTION 10 - STABILITY AND REACTIVITY ******

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Excess heat.

Incompatibilities with Other Materials: Metals, strong oxidizing agents, strong bases.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported

****** SECTION 11 - TOXICOLOGICAL INFORMATION ******

LD50/LC50: 6000 mg/Kg.

****** SECTION 12 - ECOLOGICAL INFORMATION ******

No information available.

****** SECTION 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

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regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

****** SECTION 14 - TRANSPORT INFORMATION ******

Not classified as dangerous under transport regulations.

****** SECTION 15 - REGULATORY INFORMATION ******

DSCL (EEC):

Risk Phrases:

R36/38: Irritating to eyes and skin.

Safety Phrases:

S2: Keep out of the reach of children.

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

****** SECTION 16 - OTHER INFORMATION ******

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.