

Material Safety Data Sheet

Glutaric anhydride

ACC# 43267

Section 1 - Chemical Product and Company Identification

MSDS Name: Glutaric anhydride

Catalog Numbers: AC119970050, AC119971000, AC119975000, AC388040010, AC388040500, AC388042500 AC388042500

Synonyms: Glutaric acid anhydride; Pentanedioic acid anhydride; Pentanedioic anhydride; 2H-Pyran-2,6(3H)-dione, dihydro-; Pyroglutaric acid.

Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
108-55-4	Glutaric anhydride	>90	203-593-6

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white to light yellow crystalline powder.

Warning! Causes eye, skin, and respiratory tract irritation. May be harmful if swallowed or absorbed through the skin. Moisture sensitive.

Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. If absorbed, may cause symptoms similar to those for ingestion. May be harmful if absorbed through the skin. No data found on whether or not this chemical would be likely to cause an allergic skin reaction.

Ingestion: May cause liver damage. May be harmful if swallowed. In acute toxicity studies with rats, lethal oral doses caused necrotic changes in the gastrointestinal tract and hepatitis.

Inhalation: Causes respiratory tract irritation.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

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. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, or water spray.

Flash Point: 173 deg C (343.40 deg F)

Autoignition Temperature: 320 deg C (608.00 deg F)

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 1

Section 6 - 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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: 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. Avoid breathing dust.

Storage: Store in a cool, dry place. Store in a tightly closed container. Store protected from moisture.

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.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Glutaric anhydride	none listed	none listed	none listed

OSHA Vacated PELs: Glutaric anhydride: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: 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.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

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: Crystalline powder

Appearance: white to light yellow

Odor: None reported.

pH: Not available.

Vapor Pressure: 0.00598 mm Hg @ 25 deg C

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 290 deg C

Freezing/Melting Point: 47-57 deg C

Decomposition Temperature: Not available.

Solubility: Hydrolysis.

Specific Gravity/Density: 1.411 g/cm³

Molecular Formula: C₅H₆O₃

Molecular Weight: 114.10

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Reacts with water to form corresponding acid.

Conditions to Avoid: Dust generation, exposure to moist air or water.

Incompatibilities with Other Materials: Strong oxidizing agents, acids, bases, alcohols, amines.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, acid smoke and fumes.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 108-55-4: MA3850000

LD50/LC50:

CAS# 108-55-4:

Oral, rat: LD50 = 540 mg/kg;

Skin, rabbit: LD50 = 1780 mg/kg;

Carcinogenicity:

CAS# 108-55-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Mutagenicity: No data available.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not Regulated	Not Regulated
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 108-55-4 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.

SARA Codes

CAS # 108-55-4: immediate.

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# 108-55-4 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:

XN

Risk Phrases:

R 21/22 Harmful in contact with skin and if swallowed.

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

Safety Phrases:

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

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 108-55-4: 1

Canada - DSL/NDSL

CAS# 108-55-4 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 - Additional Information
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MSDS Creation Date: 3/16/1998

Revision #5 Date: 3/01/2006

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