

Material Safety Data Sheet

GLUTARIC ACID

1. Identification of the substance/preparation and company/undertaking

Identification of product

Product name : Glutaric acid
Synonyms : pentanedioic acid; 1,3-propanedicarboxylic acid, glutaric acid 99%
Formula : $C_5H_8O_4$
CAS Registry Number : 110-94-1
EINECS/ELINCS Number : 203-817-2
RTECS # : MA3740000

Identification of manufacturer

Company Carboshale OÜ, Estonia
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2. Composition/information on ingredients

Ingredient	CAS No.	Percent	Hazardous
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Glutaric acid	110-94-1	100%	No

3. Hazard identification

Health Hazard data May be harmful if swallowed. May cause irritation to skin, eyes and respiratory tract.
Inhalation : May cause irritation to the respiratory tract.
Ingestion : No information found.
Skin contact : May cause irritation.
Eye caution : May cause irritation, redness and pain.
Chronic effects : No data available.

4. First Aid measures

Inhalation : Remove to fresh air. Seek medical attention if necessary.
Ingestion : Induce vomiting as directed by medical personnel. Get medical attention.
Eye contact : Flush immediately with plenty of clean water for at least 15 minutes. Seek medical attention.
Skin Contact : Remove any contaminated clothing, wash affected areas with plenty of water and soap.

5. Fire-Fighting measures

Fire:

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide.

Explosion:

Fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

6. Accidental release measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear suitable protective clothing. Clean up spills in a manner that does not disperse dust. Moisten with water to reduce dust generation.

7. Handling and storage

Handling:

Normal working hygiene practices should be employed. Do not use open fire. Keep away from sources of ignition - No smoking. Avoid contact with eyes and unprotected skin.

Storage:

Keep in a cool, dry, well ventilated place away from sources of heat. Keep container tightly closed.

Packaging materials:

5kg , 10kg , 20kg , 25kg drums

8. Exposure controls

Specific control parameter

Airborne Exposure limit (max. workplace conc.) None established

Personal protective equipment

Eyes	Safety glasses, safety goggles.
Respiratory system	In case of insufficient ventilation, wear suitable respiratory equipment.
Skin and body	Working clothes.
Hands	Rubber gloves, PVC coated gloves.

9. Physical and chemical properties

Appearance:	powder
Colour :	white
Mol.weight g/mol:	132,12
Specific Gravity 15°C g/cm ³ :	1,43
Soluble in water (g/l)	42,9@0°C ; 63,9@ 20°C
Ethanol	soluble
Ether	soluble
Water, max :	1,0%
Boiling Point :	200°C @ 20 mm Hg
Melting Point :	95 – 98°C
Ignition temperature :	not available
Flash Point :	not available
Vapour pressure (47°C):	1,36 hPa
Volatiles by volume @ 20°C :	0

10. Stability and reactivity

Conditiond to be avoided

Stable under ordinary conditions of use and storage.

Substances to be avoided

Avoid contamination with strong oxidizers, bases and reducing agents.

Hazardous decomposition products

Carbon dioxide and carbon monoxide may form by heated decomposition.

11. Toxicological information

Acute toxicity :

Oral LD ₅₀ (mouse) :	6000 mg/kg
Skin irritation test (rabbit) :	no irritation
Eye irritation test (rabbit) :	severe irritation

Subacute chronic toxicity :

Ames-test - *Salmonella typhimurim* : negative

Cancer Lists

NTP Carcinogen

	<i>Known</i>	<i>Anticipated</i>	<i>IARC Category</i>
Glutaric acid	NO	NO	NONE

12. Ecological information

Environmental fate : No information available

Environmental toxicity :

Fish toxicity : *L. macrochirus* LC₅₀ : 330 mg/l /24h

13. Disposal considerations

Dispose in accordance with local applicable legislation.

14. Transport information

Proper shipping name: Glutaric acid 99%
Transport not regulated.

15. Regulatory information

Labelling according to EC directives

Name: Glutaric acid 99%

Classification: -

Risk phrases: R 36 Irritant to eyes

Safety phrases: S22-26 Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36 Wear suitable protective clothing.

HS Code : 2917 19 90 00

SAFETY DATA SHEET Conforms to 93/112/EC and ISO 11014-1

16. Other Information

The information contained on the MSDS has been compiled from data considered accurate. This data is believed to be reliable, however, it must be pointed out that values for certain properties are known to vary from source to source. Carboshale OÜ expressly disclaims any warranty expressed or implied as well as any liability for any injury or loss arising from the use of this information or the materials described. This data is not to be construed as absolutely complete since additional data may be desirable when particular conditions or circumstances exist. It is the responsibility of the user to determine the best precautions necessary for the safe handling and use of this material for his application. This data relates only to the specific material designated and not to be used in combination with any other material. Many local regulations pertain directly or indirectly to the product's end use and disposal of containers and unused material. It is the purchaser's responsibility to familiarize themselves with all applicable regulations.