

SAFETY DATA SHEET

Version 6.9
Revision Date 08/07/2024
Print Date 08/08/2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Glutaraldehyde solution

Product Number : G6403
Brand : Sigma-Aldrich

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

Uses advised against : The product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by MilliporeSigma.

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES

Telephone : +1 314 771-5765
Fax : +1 800 325-5052

1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 3), H331
Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318
Respiratory sensitization (Category 1), H334

Skin sensitization (Category 1), H317

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard Statements

H302

Harmful if swallowed.

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

H331

Toxic if inhaled.

H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335

May cause respiratory irritation.

H400

Very toxic to aquatic life.

H411

Toxic to aquatic life with long lasting effects.

Precautionary Statements

P261

Avoid breathing mist or vapors.

P264

Wash skin thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P271

Use only outdoors or in a well-ventilated area.

P272

Contaminated work clothing must not be allowed out of the workplace.

P273

Avoid release to the environment.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection.

P285

In case of inadequate ventilation wear respiratory protection.

P301 + P312 + P330

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

P301 + P330 + P331

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 +

P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P333 + P313

If skin irritation or rash occurs: Get medical advice/ attention.

P342 + P311

If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.

P363

Wash contaminated clothing before reuse.

P391

Collect spillage.

P403 + P233

Store in a well-ventilated place. Keep container tightly closed.

P405

Store locked up.

P501

Dispose of contents/ container to an approved waste disposal

plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Synonyms : Glutaric dialdehyde solution
Glutaraldehyde
Pentane-1,5-dial

Formula : C₅H₈O₂
Molecular weight : 100.12 g/mol

Component	Classification	Concentration
Glutaraldehyde		
CAS-No. 111-30-8	Flam. Liq. 4; Acute Tox. 3; Acute Tox. 2; Skin Corr. 1B; Eye Dam. 1; Resp. Sens. 1; Skin Sens. 1A; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 2; H227, H301, H330, H314, H318, H334, H317, H335, H400, H411 Concentration limits: >= 0.5 %: STOT SE 3, H335; M-Factor - Aquatic Acute: 1	>= 50 - < 70 %
EC-No. 203-856-5		
Index-No. 605-022-00-X		

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

No data available

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

No data available

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5.2 Special hazards arising from the substance or mixture

Carbon oxides
Combustible.

5.3 Advice for firefighters

No data available

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

6.2 Environmental precautions

No data available

6.3 Methods and materials for containment and cleaning up

No data available

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

No data available

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

b) Odor	No data available
c) Odor Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	-21 °C (-6 °F)
f) Initial boiling point and boiling range	101 °C 214 °F at 1,013 hPa
g) Flash point	()No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	20 hPa at 20 °C (68 °F)
l) Vapor density	3.46 - (Air = 1.0)
m) Density	1.106 g/cm ³
Relative density	No data available
n) Water solubility	soluble
o) Partition coefficient: n-octanol/water	No data available
p) Autoignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	Not classified as explosive.
t) Oxidizing properties	none

9.2 Other safety information

Relative vapor density	3.46 - (Air = 1.0)
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SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture

Acute toxicity

Acute toxicity estimate Oral - 400 mg/kg
(Calculation method)

Inhalation: No data available

Acute toxicity estimate Inhalation - 4 h - 0.56 mg/l - dust/mist(Calculation method)

Dermal: No data available

No data available

Skin corrosion/irritation

Remarks: Causes skin burns.

Remarks: Mixture causes burns.

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

No toxicity to reproduction

Specific target organ toxicity - single exposure

Remarks: No data available
Mixture may cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Liver - Irregularities - Based on Human Evidence

Components

Glutaraldehyde

Acute toxicity

LD50 Oral - Rat - male and female - 200 mg/kg
(US-EPA)

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

LC50 Inhalation - Rat - male and female - 4 h - 0.28 mg/l - dust/mist
(OECD Test Guideline 403)

LD50 Dermal - Rabbit - male and female - > 1,000 mg/kg
(US-EPA)

No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Corrosive - 4 h

(OECD Test Guideline 404)

Remarks: (50% solution)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irreversible effects on the eye

(Draize Test)

Remarks: (50% solution)

Remarks: Causes serious eye damage.

Respiratory or skin sensitization

May cause allergic respiratory and skin reactions Chronic exposure may cause dermatitis. largely based on human evidence

Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster lung cells

Result: positive

Remarks: (50% solution)

mg/l - 96 h
(US-EPA)

Toxicity to algae static test ErC50 - Desmodesmus subspicatus (green algae) -
0.6 mg/l - 72 h
(OECD Test Guideline 201)

Toxicity to bacteria

SECTION 13: Disposal considerations

13.1 Waste treatment methods

No data available

SECTION 14: Transport information

DOT (US)

UN number: 2922 Class: 8 (6.1) Packing group: II
Proper shipping name: Corrosive liquids, toxic, n.o.s. (Glutaraldehyde)
Reportable Quantity (RQ):
Poison Inhalation Hazard: No

IMDG

UN number: 2922 Class: 8 (6.1) Packing group: II EMS-No: F-A, S-B
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (Glutaraldehyde)
Marine pollutant : yes

IATA

UN number: 2922 Class: 8 (6.1) Packing group: II
Proper shipping name: Corrosive liquid, toxic, n.o.s. (Glutaraldehyde)

SECTION 15: Regulatory information

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

water	7732-18-5
Glutaraldehyde	111-30-8

Pennsylvania Right To Know

Glutaraldehyde	111-30-8
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Maine Chemicals of High Concern

water	7732-18-5
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Vermont Chemicals of High Concern

water	7732-18-5
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Washington Chemicals of High Concern

water	7732-18-5
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The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16: Other information

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.

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