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

1.1 Product identifiers

Product name: Glutaric dialdehyde solution
Product Number: W512303
Brand: Aldrich

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

Identified uses: Laboratory chemicals, Synthesis of substances

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

Corrosive to the respiratory tract.
SECTION 3: Composition/information on ingredients

3.2 Mixtures

Molecular weight : 100.12 g/mol

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glutaraldehyde</td>
<td>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</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>111-30-8</td>
</tr>
<tr>
<td>EC-No.</td>
<td>203-856-5</td>
</tr>
<tr>
<td>Index-No.</td>
<td>605-022-00-X</td>
</tr>
<tr>
<td>Concentration</td>
<td>&gt;= 50 - &lt; 70 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>Flam. Liq. 2; Acute Tox. 3; STOT SE 1; H225, H301, H331, H311, H370</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>67-56-1</td>
</tr>
<tr>
<td>EC-No.</td>
<td>200-659-6</td>
</tr>
<tr>
<td>Index-No.</td>
<td>603-001-00-X</td>
</tr>
<tr>
<td>Registration</td>
<td>01-211943307-44-XXXX</td>
</tr>
<tr>
<td>Concentration</td>
<td>&gt;= 0.1 - &lt; 1 %</td>
</tr>
</tbody>
</table>

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

General advice
First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled
After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact
After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
**If swallowed**
After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

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**

*Suitable extinguishing media*
Water Foam Carbon dioxide (CO2) Dry powder

*Unsuitable extinguishing media*
For this substance/mixture no limitations of extinguishing agents are given.

5.2 **Special hazards arising from the substance or mixture**
Carbon oxides
Mixture with combustible ingredients.
Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 **Advice for firefighters**
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 **Further information**
Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

**SECTION 6: Accidental release measures**

6.1 **Personal precautions, protective equipment and emergency procedures**
Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

6.2 **Environmental precautions**
Do not let product enter drains.

6.3 **Methods and materials for containment and cleaning up**
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4 **Reference to other sections**
For disposal see section 13.
SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling
Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Hygiene measures
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions
Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Store under inert gas. Air sensitive.

Storage class
Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

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

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glutaraldehyde</td>
<td>111-30-8</td>
<td>C</td>
<td>0.2 ppm 0.8 mg/m3</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C</td>
<td>0.05 ppm 0.2 mg/m3 California permissible exposure limits for chemical contaminants (Title 8, Article 107)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C</td>
<td>0.05 ppm USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td>Remarks</td>
<td></td>
<td></td>
<td></td>
<td>Dermal Sensitization</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Respiratory sensitization</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not classifiable as a human carcinogen</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>TWA</td>
<td>200 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>250 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
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</tbody>
</table>

Danger of cutaneous absorption

Aldrich - W512303
<table>
<thead>
<tr>
<th></th>
<th>ST</th>
<th>USA. NIOSH Recommended Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>250 ppm</td>
<td>325 mg/m³</td>
</tr>
<tr>
<td>Potential for dermal absorption</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
</tr>
<tr>
<td></td>
<td>200 ppm</td>
<td>260 mg/m³</td>
</tr>
<tr>
<td>Potential for dermal absorption</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
</tr>
<tr>
<td></td>
<td>200 ppm</td>
<td>260 mg/m³</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
<td>California permissible exposure limits for chemical contaminants (Title 8, Article 107)</td>
</tr>
<tr>
<td></td>
<td>200 ppm</td>
<td>260 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Skin</td>
<td>California permissible exposure limits for chemical contaminants (Title 8, Article 107)</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>1,000 ppm</td>
</tr>
<tr>
<td></td>
<td>Skin</td>
<td>California permissible exposure limits for chemical contaminants (Title 8, Article 107)</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>250 ppm</td>
</tr>
<tr>
<td></td>
<td>250 ppm</td>
<td>325 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Skin</td>
<td>California permissible exposure limits for chemical contaminants (Title 8, Article 107)</td>
</tr>
</tbody>
</table>

### Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Parameters</th>
<th>Value</th>
<th>Biological specimen</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>Methanol</td>
<td>15 mg/l</td>
<td>Urine</td>
<td>ACGIH - Biological Exposure Indices (BEI)</td>
</tr>
</tbody>
</table>

**Remarks**
End of shift (As soon as possible after exposure ceases)

### 8.2 Exposure controls

#### Appropriate engineering controls
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

#### Personal protective equipment

**Eye/face protection**
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

**Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.4 mm
Break through time: 480 min
Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 30 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection**
protective clothing

**Respiratory protection**
Recommended Filter type: Filter type ABEK
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. 
required when vapours/aerosols are generated.
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

**Control of environmental exposure**
Do not let product enter drains.

---

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Appearance Form</td>
<td>clear, liquid</td>
</tr>
<tr>
<td>Color</td>
<td>colorless</td>
</tr>
<tr>
<td>b) Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>c) Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>d) pH</td>
<td>No data available</td>
</tr>
<tr>
<td>e) Melting point/range</td>
<td>-6 °C (21 °F)</td>
</tr>
<tr>
<td>f) Initial boiling point and boiling range</td>
<td>101 °C 214 °F at 1,013 hPa</td>
</tr>
<tr>
<td>g) Flash point</td>
<td>(No data available)</td>
</tr>
</tbody>
</table>
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 No data available
m) Density 1.106 g/cm³
   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
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
no information available

10.5 Incompatible materials
Strong bases, Acids, Oxidizing agents, Alkali metals, Strong oxidizing agents, Strong acids, Acid chlorides, Acid anhydrides, Reducing 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**
- Oral: No data available
- Acute toxicity estimate Oral - 392.16 mg/kg (Calculation method)
- Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Inhalation: No data available
- Acute toxicity estimate Inhalation - 4 h - 3 mg/l - vapor (Calculation method)
- Symptoms: Possible symptoms:, mucosal irritations, Cough, Shortness of breath, Possible damages:; damage of respiratory tract
- Dermal: No data available
- Acute toxicity estimate Dermal - > 5,000 mg/kg (Calculation method)

**Skin corrosion/irritation**
- Remarks: Mixture causes burns.

**Serious eye damage/eye irritation**
- Remarks: Mixture causes serious eye damage.
- Risk of blindness!

**Respiratory or skin sensitization**
- Mixture may cause allergy or asthma symptoms or breathing difficulties if inhaled. Mixture may cause an allergic skin reaction.

**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 data available

**Specific target organ toxicity - single exposure**
- Mixture may cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**
- No data available
### Aspiration hazard

No data available

### 11.2 Additional Information

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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)

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages; damage of respiratory tract

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)


**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)
Method: OECD Test Guideline 486
Species: Rat - male - Liver cells
Result: negative
Remarks: (50% solution)

**Carcinogenicity**
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

**Reproductive toxicity**
No data available

**Specific target organ toxicity - single exposure**
May cause respiratory irritation. - Respiratory system
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Acute oral toxicity - If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Acute inhalation toxicity - mucosal irritations, Cough, Shortness of breath, Possible damages: damage of respiratory tract

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

**Methanol**

**Acute toxicity**
Acute toxicity estimate Oral - 100.1 mg/kg
(Expert judgment)
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Symptoms: Nausea, Vomiting
Acute toxicity estimate Inhalation - 4 h - 3.1 mg/l - vapor
(Expert judgment)
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Symptoms: Irritation symptoms in the respiratory tract.
Acute toxicity estimate Dermal - 300.1 mg/kg
(Expert judgment)
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Skin corrosion/irritation**
Skin - Rabbit
Result: No skin irritation
Remarks: (ECHA)
Remarks: Drying-out effect resulting in rough and chapped skin.

**Serious eye damage/eye irritation**
Eyes - Rabbit
Result: No eye irritation
Remarks: (ECHA)

**Respiratory or skin sensitization**
Sensitisation test: - Guinea pig
Result: negative
(OECD Test Guideline 406)

**Germ cell mutagenicity**
Based on available data the classification criteria are not met.
Test Type: Ames test
Test system: Salmonella typhimurium
Result: negative
Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung cells
Result: negative
Method: OECD Test Guideline 474
Species: Mouse - male and female - Bone marrow
Result: negative

**Carcinogenicity**
Did not show carcinogenic effects in animal experiments.

**Reproductive toxicity**
Based on available data the classification criteria are not met.

**Specific target organ toxicity - single exposure**
Causes damage to organs. - Eyes, Central nervous system
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Acute oral toxicity - Nausea, Vomiting
Acute inhalation toxicity - Irritation symptoms in the respiratory tract.

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

---

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Mixture**
No data available

#### 12.2 Persistence and degradability
No data available

#### 12.3 Bioaccumulative potential
No data available
12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties
No data available

12.7 Other adverse effects
No data available

**Components**

**Glutaraldehyde**
- Toxicity to fish: static test \( LC_{50} \) - *Oncorhynchus mykiss* (rainbow trout) - 0.8 mg/l - 96 h (US-EPA)
- Toxicity to algae: static test \( ErC_{50} \) - *Desmodesmus subspicatus* (green algae) - 0.6 mg/l - 72 h (OECD Test Guideline 201)
- Toxicity to bacteria

**Methanol**
- Toxicity to fish: flow-through test \( LC_{50} \) - *Lepomis macrochirus* (Bluegill) - 15,400.0 mg/l - 96 h (US-EPA)
- Toxicity to daphnia and other aquatic invertebrates: semi-static test \( EC_{50} \) - *Daphnia magna* (Water flea) - 18,260 mg/l - 96 h (OECD Test Guideline 202)
- Toxicity to algae: static test \( ErC_{50} \) - *Pseudokirchneriella subcapitata* (green algae) - ca. 22,000.0 mg/l - 96 h (OECD Test Guideline 201)
- Toxicity to bacteria: static test \( IC_{50} \) - activated sludge - > 1,000 mg/l - 3 h (OECD Test Guideline 209)
- Toxicity to fish (Chronic toxicity): NOEC - *Oryzias latipes* (Orange-red killifish) - 7,900 mg/l - 200 h
  Remarks: (External MSDS)
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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

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

SARA 313 Components
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.

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

Massachusetts Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
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<tbody>
<tr>
<td>Glutaraldehyde</td>
<td>111-30-8</td>
<td>1993-02-16</td>
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<tr>
<td>water</td>
<td>7732-18-5</td>
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Pennsylvania Right To Know Components

<table>
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<th>Revision Date</th>
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</thead>
<tbody>
<tr>
<td>Glutaraldehyde</td>
<td>111-30-8</td>
<td>1993-02-16</td>
</tr>
</tbody>
</table>
California Prop. 65 Components

Components, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Methanol

CAS-No. 67-56-1
Revision Date 2007-07-01

SECTION 16: Other information

Further information
The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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