

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



UCARCIDE™ 25 Antimicrobial

Version 2.0 Revision Date: 09/04/2025 SDS Number: 203000023200 Date of last issue: 01/13/2025
Country / Language: US / EN

Hazard pictograms	:	
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.
Supplemental Hazard Statements	:	Corrosive to the respiratory tract.
Precautionary Statements	:	Prevention: 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. P280 Wear protective gloves, protective clothing, eye protection and face protection. P285 In case of inadequate ventilation wear respiratory protection. Response: 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. P362 + P364 Take off contaminated clothing and wash it before reuse. Storage: P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS No./Unique ID	Concentration (% w/w)
glutaral	111-30-8*	>= 10 - <= 30

* Indicates that the identifier is a CAS No.

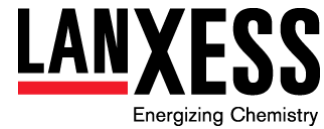
Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

- If inhaled : Get medical attention immediately.
Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If unconscious, place in recovery position and get medical attention immediately.
Maintain open airway.
If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Loosen tight clothing such as a collar, tie, belt or waistband.
In the event of any complaints or symptoms, avoid further exposure.
- In case of skin contact : Get medical attention immediately.
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Continue to rinse for 30 minutes.
Chemical burns must be treated promptly by a physician.
Wash contaminated clothing before reuse.
- In case of eye contact : Get medical attention immediately.
In case of contact, flush eyes with plenty of water for at least 30 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated.
Remove contact lenses, if present and easy to do. Continue rinsing.
Chemical burns must be treated promptly by a physician.
- If swallowed : Rinse mouth with water.
Do not induce vomiting unless directed to do by medical personnel.

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If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
If unconscious, place in recovery position and get medical attention immediately.
Never give anything by mouth to an unconscious person.
Maintain open airway.

Most important symptoms and effects, both acute and delayed

- Symptoms** : Acute overexposure to this product may cause dizziness, headache, drowsiness, malaise, abdominal pain.
Eye: Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.
Skin: Reddening, burning, and possible permanent damage.
Skin: Causes irritation with symptoms of reddening, itching, and swelling.
Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.
- Effects** : Harmful if swallowed.
May cause an allergic skin reaction.
Causes serious eye damage.
Toxic if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Causes severe burns.
Corrosive to the respiratory tract.
- Protection of first-aiders** : First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- Notes to physician** : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.
- Unsuitable extinguishing media** : None known.
- Specific hazards during fire fighting** : This material will not burn until the water has evaporated.
Residue can burn.
- Hazardous combustion products** : Under fire conditions some components of this product may

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ucts decompose. The smoke may contain unidentified toxic and/or irritating compounds.
Combustion products may include and are not limited to:

Carbon dioxide (CO₂)
Carbon monoxide

Further information : Keep people away. Isolate fire and deny unnecessary entry. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special protective equipment for fire-fighters : Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate area. Keep upwind of spill. Ventilate area of leak or spill. Only trained and properly protected personnel must be involved in clean-up operations. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For personal protection see section 8.

Environmental precautions : Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

Methods and materials for containment and cleaning up : Avoid making contact with spilled material, glutaraldehyde will be absorbed by most shoes. Always wear the correct protective equipment, consisting of splashproof monogoggles, or both safety glasses with side shields and a wraparound full-face shield, appropriate gloves and protective clothing. A self-contained breathing apparatus or respirator and absorbents

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may be necessary, depending on the size of the spill and the adequacy of ventilation.

Small spill:

Wear the correct protective equipment and cover the liquid with absorbent material. Collect and seal the material and the dirt that has absorbed the spilled material in polyethylene bags and place in a drum for transit to an approved disposal site. Rinse away the remaining spilled material with water to reduce odor, and discharge the rinsate into a municipal or industrial sewer.

Large spills:

In case of nasal and respiratory irritation, vacate the room immediately. Personnel cleaning up should be trained and equipped with a self-contained breathing apparatus, or an officially approved or certified full-face respirator equipped with an organic vapor cartridge, gloves, and clothing impervious to glutaraldehyde, including rubber boots or shoe protection. Deactivate with sodium bisulfite (2-3 parts (by weight) per part of active substance glutaraldehyde), collect the neutralized liquid and place in a drum for transit to an approved disposal site.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not spray or aerosolize the undiluted form of the product. Full personal protective equipment (including skin covering and full-face SCBA respirator) is required for dilutions or mixtures of the product used in a spray application.

Do not get in eyes, on skin, or on clothing.

Do not swallow.

Avoid prolonged or repeated contact with skin.

Avoid breathing vapors.

Keep container closed.

Use with adequate ventilation.

Wear goggles, protective clothing and butyl or nitrile gloves.

Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

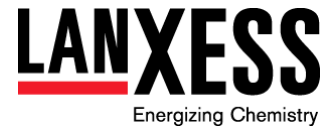
Conditions for safe storage : Do not store in:
Aluminum
Carbon steel
copper
Mild steel
Iron

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

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Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
glutaral	111-30-8	C	0.05 ppm	ACGIH

Engineering measures : Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. Local exhaust ventilation may be necessary for some operations.

Personal protective equipment

Respiratory protection : Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration. For operations such as spraying/misting and other conditions such as emergencies where the exposure guideline may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

Hand protection

Remarks : NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier. Nitrile/butadiene rubber ("nitrile" or "NBR"). Examples of acceptable glove barrier materials include: butyl-rubber Examples of preferred glove barrier materials include: Use gloves chemically resistant to this material.

Eye protection : Chemical goggles or safety glasses
If exposure causes eye discomfort, use a full-face respirator.

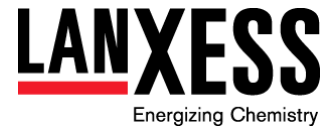
Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

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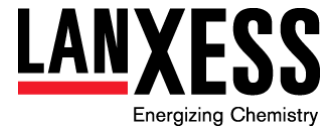
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Physical state	:	liquid
Color	:	colorless
Odor	:	fruity
Odor Threshold	:	< 1 ppb Method: Literature Data
pH	:	3.1 - 4.5 (77 °F / 25 °C) Method: ASTM E 70
Melting point/ range	:	Not applicable (liquid)
Freezing point	:	14 °F / -10 °C Method: Calculated value
Boiling point/boiling range	:	213.3 °F / 100.7 °C Method: OECD Test Guideline 103
Flash point	:	Method: ASTM D 56, closed cup No data available
Evaporation rate	:	0.9 Method: Calculated.
Upper explosion limit / Upper flammability limit	:	No test data available
Lower explosion limit / Lower flammability limit	:	No test data available
Vapor pressure	:	0.3 mmHg (68 °F / 20 °C) Method: OECD Test Guideline 104 Active ingredient
Relative vapor density	:	0.8 Method: Calculated.
Density	:	1.06 g/cm ³ (68 °F / 20 °C) Method: Calculated.
Solubility(ies) Water solubility	:	1,000 g/l Method: Calculated.
Ignition temperature	:	No test data available
Decomposition temperature	:	No test data available

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Viscosity
Viscosity, kinematic : No test data available

Explosive properties : No data available

Oxidizing properties : No data available

Molecular weight : 100.11 g/mol
Method: Calculated.

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Thermally stable at typical use temperatures.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Active ingredient decomposes at elevated temperatures.

Incompatible materials : Avoid contact with:
Amines
Ammonia
Strong acids and strong bases
Strong oxidizers.
Avoid contact with metals such as:
Aluminum
Carbon steel
Copper
Iron
Mild steel

Hazardous decomposition products : Decomposition products depend upon temperature, air supply and the presence of other materials.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if swallowed.
Toxic if inhaled.

Product:

Acute oral toxicity : Remarks: Low toxicity if swallowed.
Swallowing may result in burns of the mouth and throat.
Swallowing may result in gastrointestinal irritation or ulceration.
Excessive overexposure may cause the following effects:

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Headache
Dizziness
Anesthetic effect
Drowsiness
Unconsciousness
other central nervous effects

LD50 (Rat, male): 1,639 - 1,990 mg/kg

Acute inhalation toxicity : Remarks: Vapor from heated material or mist may cause serious adverse effects, even death.
Vapor may cause severe irritation of the upper respiratory tract (nose and throat).
Case reports and medical surveys link asthma and respiratory irritation to glutaraldehyde exposure, primarily in medical personnel.
Asthma-like symptoms may occur in people prone to respiratory disorders or other allergies.
Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

LC50 (Rat, male and female): 0.8 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : Remarks: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50 (Rabbit): 8,512 mg/kg

Components:

glutaral:

Acute oral toxicity : LD50 (Rat, female): 77 mg/kg
Method: equivalent or similar to OECD Guideline 401
GLP: Yes
Remarks: Active ingredient

LD50 (Rat, male): 123 mg/kg
Method: equivalent or similar to OECD Guideline 401
GLP: Yes
Remarks: Active ingredient

Acute inhalation toxicity : LC50 (Rat, female): 0.28 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: No

LC50 (Rat, male): 0.35 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

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Method: OECD Test Guideline 403
GLP: No

Assessment: Corrosive to the respiratory tract.
Remarks: Expert judgment

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: Yes
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks : Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Components:

glutaral:

Species : Rabbit
Method : equivalent or similar to OECD Guideline 404
Result : Corrosive after 3 minutes to 1 hour of exposure
GLP : No information available.

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks : May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.
Vapor may cause eye irritation experienced as mild discomfort and redness.

Components:

glutaral:

Species : Rabbit
Result : Irreversible effects on the eye
Method : Draize Test
GLP : No

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

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Respiratory sensitization

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

Product:

Remarks : Skin contact may cause an allergic skin reaction in a small proportion of individuals.
Contains component(s) which have caused allergic skin sensitization in guinea pigs.
Contains component(s) which have demonstrated the potential for contact allergy in mice.

Remarks : May cause allergic respiratory response in a small proportion of individuals.

Components:

glutaral:

Routes of exposure : Inhalation
Species : Human
Result : May cause sensitization by inhalation.

Test Type : Open epicutaneous test
Routes of exposure : Skin contact
Species : Guinea pig
Result : May cause sensitization by skin contact.

Test Type : Local lymph node assay (LLNA)
Routes of exposure : Skin contact
Species : Mouse
Result : The product is a skin sensitizer, sub-category 1A.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

glutaral:

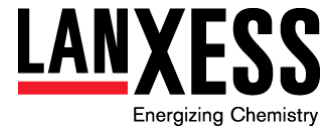
Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: positive
GLP: Yes

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster fibroblasts
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: positive
GLP: Yes

Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster ovary cells

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Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: positive
GLP: Yes

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Cell type: Bone marrow
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative
GLP: Yes

Test Type: unscheduled DNA synthesis assay
Species: Rat (male)
Cell type: Liver cells
Application Route: Oral
Method: OECD Test Guideline 486
Result: negative
GLP: Yes

Test Type: The sex-linked recessive lethal (SLRL) test.
Species: Drosophila melanogaster (vinegar fly) (male)
Result: negative

Carcinogenicity

Not classified due to lack of data.

Components:

glutaral:

Species : Rat, male and female
Application Route : Oral
Exposure time : 2 Years
Dose : 100 - 500 - 2000 parts per million
NOAEL : 100 ppm
Method : OECD Test Guideline 451
Result : negative
GLP : Yes

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.

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

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.

Reproductive toxicity

Not classified due to lack of data.

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Components:

glutaral:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Dose: 100 - 500 - 2000 parts per million
General Toxicity Parent: NOAEL: 500 parts per million
Fertility: NOAEL: 2,000 parts per million
Early Embryonic Development: NOAEL: 500 ppm
Method: OECD Test Guideline 416
Result: Animal testing did not show any effects on fertility.
GLP: Yes

Effects on fetal development : Test Type: Pre-natal
Species: Rat, female
Application Route: Oral
Dose: 50 - 250 - 750 parts per million
General Toxicity Maternal: NOEL: 50 ppm
Teratogenicity: NOAEL: 750 ppm
Embryo-fetal toxicity.: NOAEL: 750 ppm
Method: OECD Test Guideline 414
Result: Did not show teratogenic effects in animal experiments.
GLP: Yes

Test Type: Pre-natal
Species: Rabbit, female
Application Route: Oral
Dose: 5 - 15 - 45 milligram per kilogram
General Toxicity Maternal: NOAEL: 15 mg/kg body weight
Teratogenicity: NOAEL: 45 mg/kg body weight
Embryo-fetal toxicity.: NOAEL: 15 mg/kg body weight
Method: OECD Test Guideline 414
Result: Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses
GLP: Yes

STOT-single exposure

Corrosive to the respiratory tract.

Components:

glutaral:

Assessment : May cause respiratory irritation.

STOT-repeated exposure

Not classified due to lack of data.

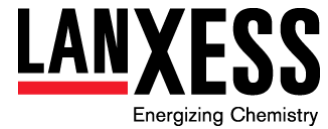
Repeated dose toxicity

Product:

Remarks : Repeated skin contact may result in absorption of amounts

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which could cause death.
nausea or vomiting

Components:

glutaral:

Species : Rat, male and female
NOAEL : 500 parts per million
LOAEL : 2000 ppm
Application Route : Oral
Exposure time : 90 Days
Number of exposures : daily
Dose : 100 - 500 - 2000 parts per million
Method : OECD Test Guideline 408
GLP : Yes
Remarks : Subchronic toxicity

Species : Rat, male and female
NOAEL : 500 parts per million
LOAEL : 2000 ppm
Application Route : Oral
Exposure time : 12 Months
Number of exposures : daily
Dose : 100 - 500 - 2000 parts per million
Method : OECD Test Guideline 452
GLP : Yes
Remarks : Chronic toxicity

Species : Dog, male and female
NOAEL : 500 parts per million
Application Route : Oral
Exposure time : 12 Months
Number of exposures : daily
Dose : 20 - 100 - 500 parts per million
Method : OECD Test Guideline 452
GLP : Yes
Remarks : Chronic toxicity

Species : Rat, male and female
NOAEC : ≥ 1 ppm
Application Route : Inhalation
Test atmosphere : vapor
Exposure time : 90 Days
Number of exposures : 6 hours/day, 5 days/week
Dose : 0,062 - 0,125 - 0,25 - 0,5 - 1 parts per million
Method : OECD Test Guideline 413
GLP : Yes
Remarks : Subchronic toxicity

Aspiration toxicity

Not classified due to lack of data.

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Product:

Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

glutaral:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 10 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: No
Method: OECD Test Guideline 203
GLP: No
Remarks: Fresh water
nominal concentration

LC50 (Lepomis macrochirus (Bluegill sunfish)): 13 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: No
Method: OECD Test Guideline 203
GLP: No
Remarks: Fresh water
nominal concentration

LC50 (Cyprinodon variegatus (sheepshead minnow)): 39 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: No
GLP: No
Remarks: salt water
nominal concentration

LC50 (Cyprinodon variegatus (sheepshead minnow)): 32 mg/l
Exposure time: 96 h
Test Type: flow-through test
Analytical monitoring: Yes
Method: OPPTS 850.1075
GLP: Yes
Remarks: salt water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 14.87 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Analytical monitoring: No
Method: Regulation (EC) No. 440/2008, Annex, C.2
GLP: No

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Remarks: Fresh water
nominal concentration

EC50 (*Daphnia magna* (Water flea)): 14 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Analytical monitoring: No
Method: EPA-660/3-75-009
GLP: No
Remarks: Fresh water
nominal concentration

EC50 (*Acartia tonsa*): 3 mg/l
Exposure time: 48 h
Test Type: static test
Analytical monitoring: Yes
Method: ISO 14669 and PARCOM method
GLP: Yes
Remarks: salt water
nominal concentration

Toxicity to algae/aquatic plants : ErC50 (*Desmodesmus subspicatus* (green algae)): 0.6 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: Yes
Method: Regulation (EC) No. 440/2008, Annex, C.3
GLP: Yes
Remarks: Fresh water
nominal concentration

NOEC (*Desmodesmus subspicatus* (green algae)): 0.025 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: Yes
Method: Regulation (EC) No. 440/2008, Annex, C.3
GLP: Yes
Remarks: Fresh water
nominal concentration

Toxicity to fish (Chronic toxicity) : NOEC (*Oncorhynchus mykiss* (rainbow trout)): 1.6 mg/l
End point: Survival test
Exposure time: 97 d
Test Type: flow-through test
Analytical monitoring: Yes
Method: OECD Test Guideline 210
GLP: Yes
Remarks: Fresh water
nominal concentration

Toxicity to daphnia and other aquatic invertebrates (Chronic) : NOEC (*Daphnia magna* (Water flea)): 5 mg/l
End point: Reproduction

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ic toxicity)		Exposure time: 21 d Test Type: semi-static test Analytical monitoring: Yes Method: OECD Test Guideline 221 GLP: Yes Remarks: Fresh water nominal concentration
Toxicity to microorganisms	:	EC20 (activated sludge): 15 mg/l End point: Respiration inhibition Exposure time: 30 min Test Type: static test Analytical monitoring: No Method: OECD Test Guideline 209 GLP: Yes EC50 (activated sludge): 80 mg/l End point: Respiration inhibition Exposure time: 30 min Test Type: static test Analytical monitoring: No Method: OECD Test Guideline 209 GLP: Yes
Toxicity to soil dwelling organisms	:	LC50 (<i>Eisenia fetida</i> (earthworms)): 170 mg/kg Exposure time: 14 d End point: Survival Method: OECD Test Guideline 207 GLP: Yes
Plant toxicity	:	EC50: > 1,000 mg/kg End point: Growth inhibition Test period: 19 d Species: <i>Avena sativa</i> (oats) Method: OECD Test Guideline 208 GLP: Yes EC50: > 1,000 mg/kg End point: Growth inhibition Test period: 19 d Species: <i>Vicia sativa</i> Method: OECD Test Guideline 208 GLP: Yes
Toxicity to terrestrial organisms	:	LD50 (<i>Anas platyrhynchos</i> (Mallard duck)): 206 mg/kg Exposure time: 14 d End point: mortality LC50 (<i>Anas platyrhynchos</i> (Mallard duck)): > 2,500 ppm Exposure time: 5 d End point: mortality

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Persistence and degradability

Components:

glutaral:

- Biodegradability : Result: rapidly biodegradable
Biodegradation: 90 - 100 %
Exposure time: 28 d
Method: OECD Test Guideline 301A
GLP: Yes
- Result: Biodegradable in sea water
Biodegradation: 90 - 100 %
Exposure time: 70 d
Method: OECD Test Guideline 306
GLP: Yes
- Concentration: 20 mg/l
Dissolved organic carbon (DOC)
Result: Biodegradable
Biodegradation: 97 %
Exposure time: 73 d
Lag phase: 1 d
Beginning of plateau phase: 2 d
Method: OECD Test Guideline 303A
GLP: Yes
- Stability in water : Remarks: Hydrolyzes slowly.
- Photodegradation : Sensitizer: OH radicals
Concentration: 500,000 1/cm³
Rate constant: 4.69E-10 cm³/s
Degradation (direct photolysis): 50 % Degradation half life: 8.2 h
Remarks: Structure-activity relationship (SAR)

Bioaccumulative potential

Components:

glutaral:

- Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.
- Partition coefficient: n-octanol/water : log Pow: -0.36 (73 °F / 23 °C)
pH: 7
Method: Regulation (EC) No. 440/2008, Annex, A.8
GLP: Yes

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Mobility in soil

Components:

glutaral:

Distribution among environmental compartments : log Koc: 2.5

Stability in soil : Test Type: aerobic degradation
Soil temperature: 77 °F / 25 °C
Radio label: Yes
Method: measured
GLP: Yes
Remarks: Not expected to adsorb on soil.

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act : When discarded in its purchased form, this product meets the criteria of corrosivity, and should be managed as a hazardous waste (EPA Hazardous Waste Number D002). (40 CFR 261.20-24)

Waste from residues : The generation of waste should be avoided or minimized wherever possible.
This material and its container must be disposed of in a safe way.
Empty containers retain product residue; observe all precautions for product.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR


UN/ID No. : UN 3265
Proper shipping name : Corrosive liquid, acidic, organic, n.o.s. (GLUTARALDEHYDE)
Class : 8
Packing group : II
Labels : 8

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: 
Packing instruction (cargo aircraft) : 855: 30.00 L
Packing instruction (passenger aircraft) : 851: 1.00 L
Environmentally hazardous : yes



IMDG-Code

UN number : UN 3265
UN proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (GLUTARALDEHYDE)
Class : 8
Packing group : II
Labels : 8
:



EmS Code : F-A, S-B
Marine pollutant : yes



Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : UN 3265
Proper shipping name : Corrosive liquid, acidic, organic, n.o.s. (GLUTARALDEHYDE)
Class : 8
Packing group : II
Labels : 8
:



ERG Code : 153
Marine pollutant : no

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Hazard and Handling Notes

Corrosive.
Environmentally hazardous substance.
Keep away from acids and oxidizing agents
Keep away from foodstuffs, acids and alkalis

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA 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 toxicity (any route of exposure)
Respiratory or skin sensitization
Skin corrosion or irritation
Serious eye damage or eye irritation

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

glutaral 111-30-8

Pennsylvania Right To Know

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

California Prop. 65

This product contains a chemical that is at or below California Propositions 65's "safe harbor level" as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label.

TSCA inventory

TSCA : This product is regulated under the United States Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

TSCA list

No substances are subject to a Significant New Use Rule.

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

FIFRA information

EPA registration number : 464-688

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

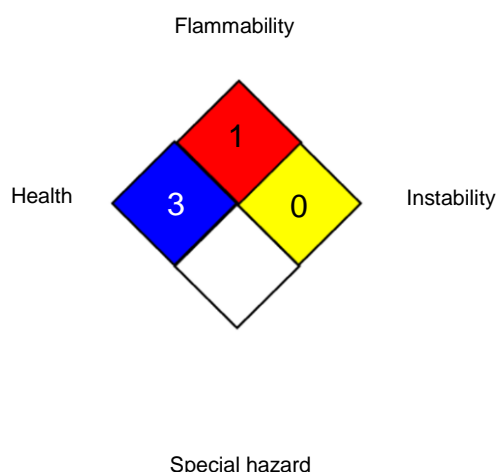
Signal Word : DANGER

Hazard Statements : Corrosive. Causes irreversible eye damage. Causes skin irritation. Harmful if inhaled. Harmful if swallowed. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes asthmatic signs and symptoms in hyper-reactive individuals.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	*	3
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH / C : Ceiling limit

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AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 09/04/2025

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered to be a guidance for processing and does not contain any warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.

Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.

US / EN