

SAFETY DATA SHEET

Date Updated: 01.06.2013
Version: 4.6
Regulation REACH (EC 1907/2006) & CLP (EC 1272/2008)

ONICHEM
Onichem Specialities
www.onichem.com

Glutaraldehyde 50%

**** SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING****

SDS Name: **Glutaraldehyde 50%**
Chemical Name: Glutaraldehyde, 50 wt.% solution in water
Synonym(s): Glutaral
IUPAC Name: Glutaraldehyde
Company Identification: Dalian Onichem Co., Ltd.
No. 2 Gaoxin Street, Qixianling, Dalian 116023, P.R. China
Tel: 86-411-84794022, Fax: 86-411-84794077
For emergencies, call CHEMTREC 1-800-424-9300 or 1-202-483-7616

**** SECTION 2 - HAZARDS IDENTIFICATION ****

EU-GHS Classifications

Classifications below according to Regulation (EU) No 1272/2008 on classification, labelling and packaging of Substances and Mixtures (CLP).

Corrosive to Metals	Category 1	H290
Skin Corrosion	Category 1B	H314
Acute Toxicity-Oral	Category 2	H301
Skin Sensitization	Category 1	H317
Acute Toxicity-inhalation	Category 3	H331
Respiratory- Sensitization	Category 1	H334
Hazardous to the aquatic environment	Category 1	H400

GHS-Labeling:

Globally Harmonized System of Classification and Labelling (GHS)

Symbol(s):



Hazard Pictogram: GHS05, GHS06, GHS07, GHS08, GHS09

Signal Word: Danger

Hazard Statement:	H290	May be corrosive to metals.
	H301	Toxic 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
	H400	Very toxic to aquatic life.

Precautionary Statement:	P260	Do not breathe dust/fume/gas/mist/vapors/spray.
	P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
	P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
	P405	Store locked up.
	P501	Dispose of contents/container to an approved incineration plant.

SAFETY DATA SHEET

ONICHEM

Onichem Specialities
www.onichem.com

Date Updated: 01.06.2013

Version: 4.6

Regulation REACH (EC 1907/2006) & CLP (EC 1272/2008)

**** SECTION 3 - COMPOSITION, INFORMATION ON INGREDIENTS ****

Ingredient (Chemical Name)	CAS#	EC#	Symbol(s)	R-phrase(s)	Hazard statements
Water, 50%.	7732-18-5	215-185-5	N/A	N/A	N/A
Glutaraldehyde, 50%.	111-30-8	203-856-5	T C Xn Xi N	R23 R25 R34 R42 R43 R50	H331 H301 H314 H334 H317 H400

**** SECTION 4 - FIRST AID MEASURES ****

General information: Take persons to a safe place. Observe self-protection for first aid. Before seeking medical attention remove contaminated clothing and shoes. Take a copy of the Safety Data Sheet when going for medical treatment.

Eyes: Flush eyes with plenty of water for at least 15 minutes, Protect unaffected eye. Consult an ophthalmologist immediately.

Skin: Flush skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention.

Ingestion: Do not induce vomiting. Never give fluids if patient is unconscious or having convulsions. Allow the victim to rinse his mouth then drink plenty of water. Consult a physician.

Inhalation: Remove from exposure to fresh air immediately. If breathing difficult occur, keep patient half sitting with upper body raised, consult a physician.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically and supportively

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan.

Suitable extinguishing media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Further information: Do not direct a solid stream of water or foam into hot, burning pools: this may cause frothing and increase fire intensity. Cool closed containers exposed to fire with water spray.

Flash point: 95°C (203°F)

Auto-ignition: 395°C (743°F)

Explosion Limits, Lower: 1.5%(V)

Upper: 50%(V)

HMIS Classification

NFPA Rating

Health 3

Health 3

Flammability 1

Fire 0

Physical hazard 0

Reactivity 0

Advice for firefighters: Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulation

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8. Keep out unprotected persons, ensure adequate ventilation.

Spills/Leaks: Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container, to be disposed of in compliance with existing regulations.

Environmental precautions: Do not flush into surface water, sanitary sewer system

**** SECTION 7 - HANDLING AND STORAGE ****

Handling: Keep containers tightly sealed. Ensure good ventilation/exhaustion at the workplace. Open and handle container with care. Keep ignition sources away – No smoking.

SAFETY DATA SHEET

Date Updated: 01.06.2013
Version: 4.6
Regulation REACH (EC 1907/2006) & CLP (EC 1272/2008)

ONICHEM
Onichem Specialities
www.onichem.com

Storage: Store in a locked cabinet or with access restricted to technical experts or their assistants. Aqueous solutions are incompatible with alkali and alkaline earth metals and many reactive organic and inorganic chemicals. Store temperature: $\leq 25^{\circ}\text{C}$

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment (PPE)

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 protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Hygiene measures: When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. Remove contaminated or saturated clothing. Wash contaminated clothing before re-use.

Protective measures: Handle in accordance with good industrial hygiene and safety practices. If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. Do not breathe in vapors or aerosols. Avoid contact with skin and eyes

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Appearance: Colorless and transparent liquid.

Odor: Pungent odor.

pH: 3.7 @ 20°C

Vapor Pressure: 20.2 hPa @ 20°C

Vapor Density: N/A.

Evaporation Rate: N/A.

Boiling Point/Melting Point: 101°C

Freezing Point: -50°C - -15°C

Specific Gravity: 1.12 g/cm³ @ 20°C

Viscosity: 12.75 mm²/s (static)

Solubility in Water: Miscible.

Molecular Formula: C₅H₈O₂

Molecular Weight: 100.12

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Avoid all sources of ignition: heat, sparks, open flame.

Incompatibilities with Other Materials: Strong oxidizing agents, strong bases.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

Acute oral toxicity: LD₅₀ Rat: cas. 158mg/kg

Acute dermal toxicity: LD₅₀ Rat: >2,000mg/kg

Acute inhalation toxicity: LC₅₀ Rat, 0.48 mg/l/4h

Skin irritation: Rabbit, Irritating.

Eye irritation: Rabbit, strongly irritating.

Sensitization: Guinea pig: Sensitizing

SAFETY DATA SHEET

ONICHEM

Onichem Specialities
www.onichem.com

Date Updated: 01.06.2013

Version: 4.6

Regulation REACH (EC 1907/2006) & CLP (EC 1272/2008)

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Toxicity to fish: semi-static test LC50, Cyprinodon variegatus, >39 mg/l 96h

Toxicity to other organisms: static test EC50, Daphnia magna, 5.75 mg/l 48h

Toxicity to algae: static test EC50, Green algae, 0.6 mg/l 72h

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.

Do not reuse empty containers and dispose of in accordance with the regulation issued by the appropriate local authorities. If there is product residue in the emptied container, follow directions for handling on the container's label.

Incorrect disposal or reuse of this container is illegal and can be dangerous.

No waste key number as per the European Waste Typed List can be assigned to this product, since such classification is based on (as yet undetermined) use to which the product is put by the consumer. The waste key number must be determined as per the European Waste Types List(EU Waste Types List 2000/532/EC) in cooperation with the disposal firm, producing firm or authority

**** SECTION 14 - TRANSPORT INFORMATION ****

Shipping Name: CORROSIVE LIQUID, TOXIC,N.O.S.

Technical name: Glutaraldehyde, 50%

DOT	Class	UN	PG		PI
	8	2922	II		
IATA/ICAO	Class	UN/ID	PG		PI
	8	2922	II		
IMDG	Class	UN	PG	EmS	PI
	8	2922	II	F-A,S-B	
RID/ADR	Class	UN	PG		PI
	8	2922	II		

**** SECTION 15 - REGULATORY INFORMATION ****

European/International Regulations

European Labeling in Accordance with EC Directives

Statutory basis/list: According to Directive 67/548/EEC or 1999/45/EC

Hazard Symbols:

T Toxic.
C Corrosive.
Xn Harmful.
Xi Irritant.
N Dangerous for the environment.

Risk Phrase(s):

R23/25 Toxic by inhalation and if swallowed.
R34 Cause burns.
R42/43 May cause sensitization by inhalation and skin contact.
R50 Very toxic to aquatic organisms.

Safety Phrase(s):

S1/2 Keep locked up and out of reach of children.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately(show the label where possible).
S61 Avoid release to the environment, refer to special instructions/safety data sheets.

SAFETY DATA SHEET

Date Updated: 01.06.2013

Version: 4.6

Regulation REACH (EC 1907/2006) & CLP (EC 1272/2008)

ONICHEM

Onichem Specialities
www.onichem.com

Other international regulations:

Listed on or in accordance with the following inventories

AICS – Listed/registered

EINECS - Listed/registered

ENCS - Listed/registered

IECSC - Listed/registered

KECL - Listed/registered

DSL - Listed/registered

PICCS - Listed/registered

TSCA - Listed/registered

**** SECTION 16 - ADDITIONAL INFORMATION ****

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages