



Infosafe No™	1CHJP	Issue Date : September 2013	RE-ISSUED by CHEMSUPP
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Product Name : **GLUTARALDEHYDE 25% Solution**

Classified as hazardous

**1. Identification**

<b>GHS Product Identifier</b>	GLUTARALDEHYDE 25% Solution	
<b>Company Name</b>	CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)	
<b>Address</b>	38 - 50 Bedford Street GILLMAN SA 5013 Australia	
<b>Telephone/Fax Number</b>	Tel: (08) 8440-2000 Fax: (08) 8440-2001	
<b>Recommended use of the chemical and restrictions on use</b>	Embalming (25% aqueous solution), sterilization of medical instruments (2% solution), manufacturing of adhesives, sealants and electrical products, intermediate, cross-linking agent for proteins and polyhydroxy compounds, paper and tanning industries, in micro capsules containing flavouring agents, disinfectant, cleaning agent, biological tissue fixative and component in developer for processing X-ray film.	
<b>Other Names</b>	<u>Name</u>	<u>Product Code</u>
	Pentanedial	
	Glutaral	
	Glutaric dialdehyde	
	1,3-Diformal propane	
	1,5-Pentanedione succin-dialdehyde	
	Glutardialdehyde	
	GLUTARALDEHYDE 25% Solution LR	GL019
<b>Other Information</b>	EMERGENCY CONTACT NUMBER: +61 08 8440 2000 Business hours: 8:30am to 5:00pm, Monday to Friday.	

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

**2. Hazard Identification**

<b>GHS classification of the substance/mixture</b>	Hazardous to the Aquatic Environment - Acute Hazard: Category 1 Eye Damage/Irritation: Category 1 Acute Toxicity - Inhalation: Category 2 Acute Toxicity - Oral: Category 4 Sensitization - Respiratory: Category 1 Skin Corrosion/Irritation: Category 2 Sensitization - Skin: Category 1
<b>Signal Word (s)</b>	DANGER
<b>Hazard Statement (s)</b>	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. H400 Very toxic to aquatic life.
<b>Pictogram (s)</b>	Health hazard, Skull and crossbones, Corrosion, Environment,

**Precautionary statement – Prevention**

P260 Do not breathe gas/mist/vapours/spray.  
P264 Wash ... thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.



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--------------	-------	-----------------------------	-----------------------

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**Precautionary statement – Response**

P271 Use only outdoors or in a well-ventilated area.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P284 Wear respiratory protection.  
 P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P330 Rinse mouth.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P311 Call a POISON CENTER or doctor/physician.  
 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.

**Precautionary statement – Storage****Precautionary statement – Disposal****Other Information**

Glutaraldehyde's irritating effect is enhanced when it is heated or in the activated alkaline form.

**3. Composition/information on ingredients****Chemical** Liquid**Characterization Ingredients**

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
Water to make 100%		0-100 %		
Glutaraldehyde	111-30-8	10-30 %		
Methanol	67-56-1	0.1-10 %		

**4. First-aid measures**

**Inhalation** Remove victim to fresh air. Employ artificial respiration if indicated. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical attention.

**Ingestion** If swallowed do NOT induce vomiting. Seek medical attention immediately.

**Skin** Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek urgent medical assistance.

**Eye contact** Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.

**First Aid Facilities** Maintain eyewash fountain and drench facilities in work area.

**Other Information** For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

**5. Fire-fighting measures**

**Hazards from Combustion Products** Oxides of carbon.

**Specific Methods** Use dry chemical, alcohol-resistant foam, CO2 or water spray.

**Hazchem Code** 2XE

**Precautions in connection with Fire** Wear SCBA and chemical splash suit. Fully encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

**6. Accidental release measures**

**Personal Precautions** Evacuate the area of all non-essential personnel. Avoid inhalation, contact with skin, eyes and clothing.

**Personal Protection** Wear protective clothing specified for normal operations (see Section 8)

**Clean-up Methods - Small Spillages** Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.

**7. Handling and storage**



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**Precautions for Safe Handling** Avoid all contact and inhalation of vapour or mists. Use in a chemical fume hood. Wear personal protective equipment.

**Conditions for safe storage, including any incompatibilities** Store in cool place and out of direct sunlight. Keep container tightly closed and in a well-ventilated place.

**Storage Regulations** Refer Australian Standard AS 4452 - 1997 'The storage and handling of toxic substances'.

**8. Exposure controls/personal protection**

Occupational exposure limit values	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Glutaraldehyde			0.41	0.1	Peak limitation
	Methanol	328	250	262	200	
<b>Other Exposure Information</b>	TWA: 0.82 mg/m3 (0.2 ppm) - peak limitation - glutaraldehyde; Peak Limitation - a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes. Note: Substance is known to act as sensitiser - Safe Work Aust.					
<b>Appropriate engineering controls</b>	Maintain concentration below recommended exposure limit. Use with local exhaust ventilation or while wearing appropriate respirator.					
<b>Respiratory Protection</b>	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.					
<b>Eye Protection</b>	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.					
<b>Hand Protection</b>	Hand protection should comply with AS 2161 Industrial Safety Gloves and Mittens (Excluding Electrical and Medical Gloves).					
<b>Footwear</b>	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.					
<b>Body Protection</b>	Wear suitable protective clothing to prevent skin contact. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.					
<b>Hygiene Measures</b>	Personal protective equipment should only be re-used after thorough cleaning with soap and water. Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material.					
<b>Other Information</b>	Personal protective equipment may not prevent health effects in already sensitised staff.					

**9. Physical and chemical properties**

<b>Form</b>	Liquid
<b>Appearance</b>	Colourless, oily liquid.
<b>Odour</b>	Pungent odour.
<b>Melting Point</b>	-10 °C (100%)
<b>Boiling Point</b>	188 °C - decomposes (100%)
<b>Solubility in Water</b>	Soluble.
<b>Solubility in Organic Solvents</b>	Soluble in ethanol. Slightly soluble in benzene and ether.
<b>Specific Gravity</b>	0.72 @ 20 °C (100%) 1.13 (50%) 1.06 (25%)
<b>pH</b>	pH of 50% solution: 4 (mildly acidic)
<b>Vapour Pressure</b>	17 mm Hg @ 20 °C
<b>Odour Threshold</b>	0.04 ppm



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<b>Flammability</b>	Combustible.
<b>Molecular Weight</b>	100.12
<b>Other Information</b>	CONVERSION FACTOR: 1 ppm = 4.10 mg/m <sup>3</sup> (25 °C, 1 atm)

**10. Stability and reactivity**

<b>Chemical Stability</b>	Stable under normal use conditons.
<b>Incompatible Materials</b>	Strong acids, bases and oxidizing agents.
<b>Hazardous Decomposition Products</b>	Carbon dioxide and carbon monoxide.
<b>Hazardous Polymerization</b>	Will not occur.

**11. Toxicological Information**

<b>Ingestion</b>	Harmful if swallowed. May cause severe abdominal pain, cramps, vomiting, diarrhoea and coma. Possible reversible liver and kidney damage.
<b>Inhalation</b>	Toxic by inhalation. Inhalation of vapours and aerosols can cause nose, throat and lung irritation (above 0.3 ppm), headaches (above 0.5 ppm) and nausea. May cause allergic rhinitis, breathing difficulties and chest tightness. May cause sensitisation by inhalation.
<b>Skin</b>	Causes burns. May cause sensitisation by skin contact.
<b>Eye</b>	Causes burns. Risk of serious damage to eyes. Vapour may cause irritation.
<b>Chronic Effects</b>	Prolonged exposure has been reported to cause damage to vocal cords and loss of sensation in the mouth, throat and oesophagus.
<b>Other Information</b>	May cause sensitization by inhalation and skin contact.

**12. Ecological information**

<b>Short Summary of Assessment of Environmental Impact</b>	Very toxic to aquatic organisms.
<b>Environmental Protection</b>	Do not allow product to enter drains, waterways or sewers.

**13. Disposal considerations**

<b>Disposal Considerations</b>	Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of according to relevant local, state and federal government regulations.
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**14. Transport information**

<b>Transport Information</b>	Dangerous Goods of Class 6 (Toxic and Infectious Substances) are incompatible in a placard load with any of the following: Class 1, Class 3, if the Class 3 dangerous goods are nitromethane, Class 8, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids; and are incompatible with food and food packaging in any quantity.
<b>U.N. Number</b>	2927
<b>UN proper shipping name</b>	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.
<b>Transport hazard class(es)</b>	6.1
<b>Sub.Risk</b>	8
<b>Hazchem Code</b>	2XE
<b>Packaging Method</b>	3.8.6.1RT7,RT8
<b>Packing Group</b>	II
<b>EPG Number</b>	6J4
<b>IERG Number</b>	36



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# Safety Data Sheet

infosafe  
CS: 1.7.2

Page: 5 of 5

Infosafe No™	1CHJP	Issue Date : September 2013	RE-ISSUED by CHEMSUPP
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## 15. Regulatory information

**Regulatory Information** Listed in the Australian Inventory of Chemical Substances (AICS).  
**Poisons Schedule** S6

## 16. Other Information

**Literature References** Australian Health Ministers' Advisory Council, 'Standard for the Uniform Scheduling of Drugs and Poisons No.14', AGPS, Canberra 1999.  
 Lewis, Richard J. Sr.'Hawley's Condensed Chemical Dictionary 12th. Ed.', Rev., Van Nostrand Reinhold, NY, 1993.  
 National Road Transport Commission, 'Australian Dangerous Goods Code 6th. Ed.', AGPS, Canberra, 1998.  
 South Australia Government, 'Approved Code of Practice for the Labelling of Workplace Substances', 1995.  
 Standards Australia, 'Dangerous Goods - Initial Emergency Response Guide', 1997.  
 Worksafe Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)] ', AGPS, Canberra 1999.  
 Worksafe Australia, 'List of Designated Hazardous Substances [NOHSC:10005(1999)] ', AGPS, Canberra 1999.  
 Worksafe Australia, 'National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)] ', AGPS, Canberra 1994.  
 Worksafe Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]', AusInfo Dept of Finance and Admin, Canberra 1995.

**Contact Person/Point** Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**  
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**Empirical Formula & Structural Formula** C5H8O2**User Codes****User Field Title****User Code**

CAS No.

111-30-8

First Aid Phrases

A,G3,E2,S1

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