

Safety data sheet number PID1782
Version 5
Revision date 13/Feb/2020
Supercedes Date: 23/Nov/2016



Safety Data Sheet GLUTE 25

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name GLUTE 25
Product code PID1782
Country Limitations This SDS is not for use in EU/EEA.

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

Recommended Use Biocide
Uses advised against Consumer use

1.3 Details of the supplier of the safety data sheet

Supplier

Schlumberger Oilfield UK PLC
Schlumberger House, Buckingham Gate
Gatwick Airport
West Sussex RH6 0NZ

+47 51577424

SDS@slb.com

1.4 Emergency Telephone Number

Emergency telephone - (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 561 1600

2. Hazards Identification

2.1 Classification of the substance or mixture

GHS Classification

Health hazards

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Vapours)	Category 2
Skin corrosion/irritation	Category 1 Subcategory 1B
Serious eye damage/eye irritation	Category 1
Respiratory sensitisation	Category 1
Skin sensitisation	Sub-Category 1A

Environmental hazards

Chronic aquatic toxicity	Category 2
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Physical Hazards Not classified

2.2 Label elements



Signal word
DANGER

Hazard Statements

H301 - Toxic if swallowed
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H330 - Fatal if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

P260 - Do not breathe dust/fume/gas/mist/vapours/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
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
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Supplementary precautionary statements

P264 - Wash face, hands and any exposed 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 should not be allowed out of the workplace
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing and eye/face protection
P284 - Wear respiratory protection
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
P362 + P364 - Take off contaminated clothing and wash it before reuse
P391 - Collect spillage
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Contains

Glutaraldehyde

Methanol (impurity)

2.3 Other hazards

Not classified as PBT/vPvB by current EU criteria

3. Composition/information on Ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical Name	EC No	CAS No	Weight-%
Glutaraldehyde	203-856-5	111-30-8	10-30
Methanol (impurity)	200-659-6	67-56-1	<1

Comments

The product contains other ingredients which do not contribute to the overall classification.

4. First Aid Measures

4.1 First aid measures

Inhalation	Move the exposed person to fresh air at once. If breathing is difficult, (trained personnel should) give oxygen. If not breathing, give artificial respiration. Seek medical attention at once.
Ingestion	Do NOT induce vomiting. Get immediate medical attention. Rinse mouth. Risk of product entering the lungs on vomiting after ingestion. Never give anything by mouth to an unconscious person.
Skin contact	Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Chemical burns must be treated by a physician.
Eye Contact	Remove contact lenses, if worn. Rinse immediately with plenty of water, also under the eyelids. Continue to rinse for at least 15 minutes. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed

General advice	Seek medical attention for all burns, regardless how minor they may seem. The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms develop, the casualty should be transferred to hospital as soon as possible.
Symptoms	
Inhalation	Please see Section 11. Toxicological Information for further information.
Ingestion	Please see Section 11. Toxicological Information for further information.

Skin contact Please see Section 11. Toxicological Information for further information.

Eye contact Please see Section 11. Toxicological Information for further information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

5. Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, dry chemical, carbon dioxide (CO₂), or foam.

Extinguishing media which must not be used for safety reasons

None known.

5.2. Special hazards arising from the substance or mixture

Unusual fire and explosion hazards

None known.

Hazardous combustion products

Fire or high temperatures create: Carbon oxides (CO_x), Heating or fire can release toxic gas.

5.3 Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

Special Fire-Fighting Procedures

Containers close to fire should be removed immediately or cooled with water.

Hazchem code ADG

2X

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Do not get on skin or clothing. Wash thoroughly after handling. Do not breathe vapours or spray mist. Use personal protective equipment. See also section 8.

6.2 Environmental precautions

The product should not be allowed to enter drains, water courses or the soil.

Environmental exposure controls

Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

6.4 Reference to other sections

See section 13 for more information.

7. Handling and Storage

7.1 Precautions for safe handling

Handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Avoid spills and splashing during use. Do not breathe vapors or spray mist. Persons susceptible to allergic reactions should not handle this product.

Hygiene Measures

Use good work and personal hygiene practices to avoid exposure When using do not smoke, eat or drink. Wash hands and face before breaks and immediately after handling the product Remove contaminated clothing

7.2 Conditions for safe storage, including any incompatibilities

- Technical measures/precautions** Ensure adequate ventilation. Keep airborne concentrations below exposure limits.
- Storage precautions** Keep containers tightly closed in a dry, cool and well-ventilated place Store in original container Store above freezing temperature Avoid excessive heat for prolonged periods of time. Avoid contact with: Oxidizing agents Acids Bases Ammonia or amines. Aluminium Carbon steel Copper Iron Mild steel.
- Storage class** Corrosive storage. Toxic storage.
- Packaging materials** Use specially constructed containers only
- Packaging materials to be avoided** Aluminium Carbon steel Copper Mild steel. Iron

8. Exposure Controls/Personal Protection

8.1 Control parameters

Component Information

Chemical Name	Arabic	Australia	Egypt
Glutaraldehyde	Not determined	Not determined	Not determined
Methanol (impurity)	250 ppm STEL 328 mg/m ³ STEL 200 ppm TWA 262 mg/m ³ TWA	250ppmSTEL 328mg/m ³ STEL 200ppmTWA 262mg/m ³ TWA	250 ppm STEL 325 mg/m ³ STEL Skin designation 200 ppm TWA 260 mg/m ³ TWA
Chemical Name	India	Indonesian	Japan
Glutaraldehyde	Not determined	0.05 ppm STEL	0.03 ppm Ceiling Group 1 airway sensitizer

Methanol (impurity)	250 ppm STEL 310 mg/m ³ STEL 200 ppm TWA 260 mg/m ³ TWA	200 ppm TWA 250 ppm STEL	Group 1 skin sensitizer May cause substantial skin absorption 200 ppm ACL 200 ppm OEL 260 mg/m ³ OEL
Chemical Name	Kazakhstan	Kuwait	New Zealand
Glutaraldehyde	5 mg/m ³ MAC	Not determined	0.05 ppm STEL sensitiser
Methanol (impurity)	5 mg/m ³ MAC	260 mg/m ³ TWA 200 ppm TWA Skin notation 325 mg/m ³ STEL 250 ppm STEL	250 ppm STEL 328 mg/m ³ STEL 200 ppm TWA 262 mg/m ³ TWA Possibility of significant uptake through the skin
Chemical Name	Malaysia	Philippines	Russia
Glutaraldehyde	0.05 ppm Ceiling 0.21 mg/m ³ Ceiling	Not determined	5 mg/m ³ MAC Allergenic substance
Methanol (impurity)	200 ppm TWA 262 mg/m ³ TWA Skin notation	200 ppm TWA 260 mg/m ³ TWA	15 mg/m ³ STEL Skin notation 5 mg/m ³ TWA Skin
Chemical Name	Thailand	Vietnam	Turkey
Glutaraldehyde	Not determined	Not determined	Not determined
Methanol (impurity)	Not determined	50 mg/m ³ TWA 100 mg/m ³ STEL	Skin 200 ppm TWA 260 mg/m ³ TWA

8.2 Exposure controls

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

Engineering Controls

Ensure adequate ventilation Provide mechanical general and/or local exhaust ventilation to prevent release of vapor or mist into work environment.

Personal protective equipment

Eye protection

Eye protection must conform to standard EN 166 Chemical splash goggles and face shield

Hand protection

Wear chemically resistant gloves (tested to EN 374) in combination with 'basic' employee training

Impervious gloves made of: Butyl rubber

Break through time >480 minutes

Glove thickness 0.7 mm

Be aware that liquid may penetrate the gloves. Frequent change is advisable.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment When workers are facing concentrations above the exposure limit they must use appropriate certified respirators Respirator with combination filter for vapor/particulate Type A2/P3 At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.

Skin and body protection

Wear suitable protective clothing Eye wash and emergency shower must be available at the work place.

Hygiene Measures

Wash hands before eating, drinking or smoking Remove and wash contaminated clothing

before re-use



8.2.3 Environmental exposure controls

Environmental exposure Use appropriate containment to avoid environmental contamination See section 6 for more information

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state Liquid
Appearance No information available
Odour Fruity
Colour Amber
Odour threshold Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	3.7 - 4.5	
pH @ dilution	No information available	
Melting / freezing point	No information available	
Boiling point/range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	Not applicable	
Flammability Limit in Air		
Upper flammability limit	Not applicable	
Lower flammability limit	Not applicable	
Vapour pressure	No information available	
Vapour density	No information available	
Specific gravity	1.04 - 1.08	
Bulk density	No information available	
Relative density	No information available	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Autoignition temperature	> 93 °C / > 200 °F	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
log Pow	No information available	
Explosive properties	No information available	
Oxidising properties	No information available	
9.2 Other information		
Pour point	No information available	
Molecular weight	No information available	

VOC content(%) No information available
Density No information available

Comments

The data listed above are typical physical and chemical properties and should not be construed as product specification.

10. Stability and Reactivity

10.1 Reactivity

Corrosive. Reacts with alkalis to generate heat.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of Hazardous Reactions

Hazardous polymerisation

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Store above freezing temperature. Avoid excessive heat for prolonged periods of time.

10.5 Incompatible materials

Oxidizing agents. Acids. Bases. Ammonia or amines. Aluminium. Carbon steel. Copper. Iron. Mild steel.

10.6 Hazardous decomposition products

See Section 5.2.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Inhalation

Fatal if inhaled. Corrosive to the respiratory tract. Vapours are corrosive. After 24-36 hours, injured persons may develop serious shortness of breath and lung oedema. Vapours irritate the respiratory system, and may cause coughing and difficulties in breathing. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Eye contact

Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact

Causes severe skin burns. May cause an allergic skin reaction. Components of the product may be absorbed into the body through the skin.

Ingestion

Toxic if swallowed. Can burn mouth, throat, and stomach. Corrosive to the respiratory tract.

Unknown acute toxicity

Not applicable.

Toxicology data for the components

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Glutaraldehyde	= 252 mg/kg (Rat)	= 560 µL/kg (Rabbit) = 1800 mg/kg (Rabbit)	= 23.5 ppm (Rat) 4 h = 40.1 ppm (Rat) 4 h
Methanol (impurity)	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit) = 15800 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h = 64000 ppm (Rat) 4 h

Sensitisation	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction.
Mutagenic effects	This product does not contain any known or suspected mutagens.
Carcinogenicity	This product does not contain any known or suspected carcinogens.
Reproductive toxicity	This product does not contain any known or suspected reproductive hazards.
Routes of Exposure	Skin contact. Inhalation. Ingestion. Eye contact.
Routes of entry	Skin contact. Inhalation. Ingestion. Eye contact.
Specific target organ toxicity - Single exposure	Not classified
Specific target organ toxicity - Repeated exposure	Not classified.
Aspiration hazard	Not applicable.
Other information	Key literature references and sources for data. See Section 16 for more information.

12. Ecological Information

12.1 Toxicity

Toxic to aquatic life with long lasting effects
The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

Toxicity to algae
See component information below.

Toxicity to fish
See component information below.

Toxicity to daphnia and other aquatic invertebrates
See component information below.

Toxicology data for the components

Chemical Name	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Glutaraldehyde	= 5.4 mg/L LC50 Pimephales	= 0.84 mg/L EC50 Desmodesmus	0.56 - 1.0 mg/L EC50 Daphnia

	promelas 96 h 7.8 - 13 mg/L LC50 Oncorhynchus mykiss 96 h 2.6 - 4.8 mg/L LC50 Oncorhynchus mykiss 96 h 7.8 - 22 mg/L LC50 Lepomis macrochirus 96 h	subspicatus 96 h = 0.61 mg/L EC50 Desmodosmus subspicatus 72 h	magna 48 h = 14 mg/L EC50 Daphnia magna 48 h
Methanol (impurity)	13500 - 17600 mg/L LC50 Lepomis macrochirus 96 h 18 - 20 mL/L LC50 Oncorhynchus mykiss 96 h 19500 - 20700 mg/L LC50 Oncorhynchus mykiss 96 h > 100 mg/L LC50 Pimephales promelas 96 h = 28200 mg/L LC50 Pimephales promelas 96 h	No information available	No information available

12.2 Persistence and degradability

See component information below.

Chemical Name	Persistence and degradability
Glutaraldehyde	Readily biodegradable
Methanol (impurity)	Readily biodegradable

12.3 Bioaccumulative potential

See component information below.

Chemical Name	Bioaccumulation
Glutaraldehyde	No bioaccumulation potential
Methanol (impurity)	Not likely to bioaccumulate Bioconcentration factor (BCF) 1-4.5

12.4 Mobility

Mobility

Soluble in water. See component information below.

Chemical Name	Mobility
Glutaraldehyde	Soluble in water
Methanol (impurity)	Soluble in water

Mobility in soil

See component information below.

Chemical Name	Mobility in soil
Glutaraldehyde	DT50 of 1.7 days was calculated, indicating that glutaraldehyde is rapidly degraded in soil by microbial biotransformation
Methanol (impurity)	Not expected to adsorb on soil

12.5 Results of PBT and vPvB assessment

Not classified as PBT/vPvB by current EU criteria.

12.6 Other adverse effects.

None known.

12.7 Other information

Key literature references and sources for data. See Section 16 for more information.

13. Disposal considerations

13.1 Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations.

Contaminated packaging Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal.

14. Transport information

14.1. UN number

UN/ID No. (ADR/RID/ADN/ADG)	UN2922
UN No. (IMDG)	UN2922
UN No. (ICAO/ANAC)	UN2922

14.2. UN proper shipping name

CORROSIVE LIQUID, TOXIC, N.O.S. (Glutaraldehyde)

14.3. Hazard class(es)

ADR/RID/ADN/ADG Hazard class	8 (6.1)
IMDG Hazard class	8 (6.1)
ICAO Hazard class/division	8 (6.1)

14.4 Packing group

ADR/RID/ADN/ADG Packing Group	II
IMDG Packing group	II
ICAO Packing group	II



14.5 Environmental hazard

Yes



14.6 Special precautions

Hazard ID	86
EmS (IMDG)	F-A, S-B
Emergency Action Code (EAC)	2X
Tunnel restriction code	(E)
Hazchem code ADG	2X

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

Please contact SDS@slb.com for info regarding transport in Bulk.

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety data sheet complies with the requirements of:
 The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Australian Standard for the Uniform Scheduling of Drugs and Poisons

Glutaraldehyde
 Schedule 6
 Schedule 5
 Methanol (impurity)
 Schedule 6
 Schedule 5

International inventories

USA, Toxic Substances Control Act inventory (TSCA)	Complies
Canada (DSL)	Complies
Philippines (PICCS)	Complies
Inventory - Japan - Existing and New Chemicals list	Complies
China (IECSC)	Complies
Australia (AICS)	Complies
Korea (KECL)	Complies
Inventory - New Zealand - Inventory of Chemicals (NZIoC)	Complies

This SDS is not for use in EU/EEA.

16. Other Information

Prepared by	Global Regulatory Compliance - Chemicals (GRC - Chemicals) , Anne Karin (Anka) Fosse
Supersedes Date:	23/Nov/2016
Revision date	13/Feb/2020
Version	5
This SDS has been revised in the following section(s)	All sections There have been changes with regard to classification. Updated according to GHS/CLP.

Key literature references and sources for data

www.ChemADVISOR.com
Supplier
National Chemical Inventories
National regulatory information
National occupational exposure limits

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