Safety Data Sheet

According to GHS, Regulation (EC) No 1907/2006 and SANS 10234:2008

TRISEPT

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

1.1 Product identifier: TRISEPT

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

Use of the substance/mixture: Industrial disinfectant

1.3 Details of the supplier of the safety data sheet

Company name:	Kevali Chemicals
Street:	66 Rivonia Road
Place:	SANDTON
Telephone:	+27 11 326 5019
e-Mail:	info@kevalichemicals.co.za
Contact Person:	Dumisani Khanyile
web address:	kevalichemicals.co.za
Responsible department:	Technical

1.4 Emergency contact telephone: +27 83 415 3163

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Hazard categories:

Met. Corr. 1

Acute Tox. 3 (oral)

Acute Tox. 3 (Inhalation - mist)

Skin Corr./Irrit. 1B

Resp. Sens. 1

2.2 Label elements

Signal Word: DANGER!
Pictogram:

Hazard statements:

H315 Causes skin irritation.

H332 Harmful if inhaled.

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H290	May be corrosive to metals.

Precautionary statements:

Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P284	Wear respiratory protection.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P234	Keep only in original container.

Response:

P310	Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P341 + P311	IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P303 + P361 + P352	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water.
P301 + P330	IF SWALLOWED: rinse mouth.
P362	Take off contaminated clothing and wash before reuse.
P391	Collect spillage.
P390	Absorb spillage to prevent material damage.

Storage:

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P406	Store in corrosive resistant container with a resistant inner liner.

Disposal:

P501	Dispose of contents/container to hazardous or special waste collection point.

SECTION 3: Composition / Information on ingredients

Chemical characterisation: QAC / Aldehyde based disinfectant used at 0.5 – 2%

Chemical name*	**CAS No.**	**%**	**EC No.**
Glutaraldehyde **Full text of H and EUH phrases: see section 16.*	111-30-8	15 – 20	203-856-5

SECTION 4: First Aid Measures

4.1 Description of first-aid measures: Immediately remove contaminated clothing. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). First aid personnel should pay attention to their own safety.

Inhalation: Keep patient calm, remove to fresh air, and seek medical attention. Immediately inhale corticosteroid dose aerosol.

Ingestion: Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Skin contact: Immediately wash thoroughly with plenty of water, apply sterile dressings, and consult a skin specialist

Eye contact: Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11, further symptoms are possible.

4.3 Indication of any immediate medical attention and special treatment needed:

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote. Pulmonary oedema prophylaxis. Medical monitoring for at least 24 hours.

First Aid Facilities: Eye wash station, safety shower and normal washroom facilities.

SECTION 5: Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media: Foam, water spray, dry powder, carbon dioxide

Unsuitable extinguishing media: Straight streams of water.

5.2 Special hazards arising from the substance or mixture: nitrogen oxides, carbon oxides. The substances/groups of substances mentioned can be released in case of fire.

5.3 Special protective actions for firefighters: Wear self-contained breathing apparatus and chemical-protective clothing.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Ensure thorough ventilation of stores and work areas. Avoid aerosol formation.

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

6.2 Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

6.3 Methods and materials for containment and clean up:

For large amounts: Pump off product. For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Avoid contact with skin. Avoid breathing fumes. Avoid ingestion. Avoid inhalation of vapours. Use only with adequate ventilation. Keep away from heat and sources of ignition. Keep container tightly closed. Wear protective gloves/clothing and eye/face protection.

7.2 Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place. Keep under inert gas. Keep at temperature not exceeding 40 °C.

Suitable packaging material:

Stainless steel (304/316) –nickel, Fiberglass-reinforced plastics, high density polyethylene

Non suitable packaging material:

Lead, aluminium, copper, zinc, bronze, tin

SECTION 8: Exposure controls and protection

8.1 Control parameters

Exposure limits

Substance	mg/m^3	Origin
Glutaraldehyde	0.25	DNEL 111-30-8

Freshwater: 0.0025 mg/l, marine water: 0.00025 mg/l, intermittent release: 0.006 mg/l, STP: 0.8 mg/l sediment (freshwater): 5.27 mg/kg, sediment (marine water): 0.527 mg/kg soil: 0.03 mg/kg

Components with (Derived no effect level) DNEL 111-30-8: Glutaraldehyde worker: Long-term exposure - local effects, Inhalation: 0.25 mg/m^3

8.2 Exposure control

Appropriate engineering controls:

Provide sufficient ventilation to keep airborne levels below the exposure limits.

Personal protective equipment:

Maintain eye wash fountain and quick-drench facilities in work area. Final choice of appropriate protection will vary according to methods of handling, engineering controls and risk assessments undertaken.

Respiratory protection:

Respiratory equipment with combination filter.

Hand protection:

Nitrile, butyl rubber, polyvinyl chloride (PVC), or neoprene gloves with long sleeves.

Eye / face protection:

Safety glasses with side shields, goggles or full-face shield

Skin protection:

Appropriate protective clothing to protect against possible skin contact.

SECTION 9: Physical and chemical properties

Physical state	Liquid
Colour	Clear to amber
Odour	Glutaraldehyde
Odour threshold	Not determined
Boiling point	>100^{0}C (212^{0}F)
Melting point	May start to solidify at 12°C (53.6°F)
Specific gravity	1.03 (water = 1 at 20^{0}C)
Vapour density	No data available
Vapour pressure	100 Pa at 380C
Evaporation rate (butyl acetate = 1)	No data available
Solubility	Easily soluble in cold water, hot water
Octanol/water partition coefficient	The product is much more soluble in water
pH	3 (Conc. (% w/w): 1%)
Flash point	Not applicable
Fire Hazards in Presence of Non-flammable Various Substances	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Explosive properties	No data available
Oxidising properties	No data available
	Not data available

SECTION 10: Stability and reactivity

10.1 Reactivity:

No hazardous reactions if stored and handled as prescribed/indicated.

10.2 Chemical stability:

The product is stable if stored and handled as prescribed/indicated. The product may become unstable at elevated temperatures and under pressure.

10.3 Possibility of hazardous reactions:

Reacts with amines. Exothermic reaction.

10.4 Conditions to avoid:

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

10.5 Incompatible materials:

Substances to avoid: amines.

10.6 Hazardous decomposition products:

Thermal decomposition products: Carbon monoxide, Carbon dioxide

SECTION 11: Toxicological information

11.1 Routes of exposure:

Information on toxicological effects

11.2 Acute toxicity

Assessment of acute toxicity:

Of high toxicity after short-term inhalation. Of high toxicity after single ingestion. Of low toxicity after short-term skin contact.

Experimental/calculated data:

LD50 rat (oral): approx. 158 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): 0.48 mg/l 4 h (OECD Guideline 403)

An aerosol was tested.

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

The data refer to a diluted watery solution of the substance.

11.3 Irritation

Assessment of irritating effects:

Corrosive! Damages skin and eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: Corrosive. (OECD Guideline 404)

The data refer to a diluted watery solution of the substance.

Serious eye damage/irritation rabbit: irreversible damage (Draize test)

The data refer to a diluted watery solution of the substance.

11.4 Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract.

Experimental/calculated data:

Open epicutaneous test (OET) guinea pig: skin sensitizing

The data refer to a diluted watery solution of the substance.

11.5 Germ cell mutagenicity

Assessment of mutagenicity:

The substance was mutagenic in various test systems with bacterias and cell cultures; however, these results could not be confirmed in tests with mammals.

11.6 Carcinogenicity

Assessment of carcinogenicity:

In long-term animal studies in which the substance was given in the drinking water in high concentrations, a carcinogenic effect was not observed. In long-term animal studies in which the substance was given by inhalation, a carcinogenic effect was not observed.

11.7 Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect.

11.8 Developmental toxicity

Assessment of teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

11.9 Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

After repeated exposure the prominent effect is local irritation. The substance may cause damage to the upper respiratory tract even after repeated inhalation, as shown in animal studies.

Aspiration hazard not applicable

11.10 Other relevant toxicity information

Toxicological data applies only to the water free substance.

SECTION 12: Ecological information

12.1 Ecotoxicity:

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms. Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible. The product has not been tested. The data have been deduced from values for a preparation or mixture with a lower substance concentration.

Toxicity to fish:

LC50 (96 h) 39 mg/l, Cyprinodon variegatus (Fish test acute, static)

The details of the toxic effect relate to the nominal concentration.

LC50 (96 h) 9.4 mg/l, Lepomis macrochirus (Fish test acute, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates:

EC50 (48 h) 5.75 mg/l, Daphnia magna (Daphnia test acute, static)

The details of the toxic effect relate to the nominal concentration.

EC50 (96 h) 0.75 mg/l, Crassatrea virginica (other, Flow through.)

The statement of the toxic effect relates to the analytically determined concentration.

LC50 (96 h) 5.5 mg/l, Mysidopsis bahia (OPP 72-3 (EPA-Guideline), Flow through.)

The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants:

EC50 (72 h) 0.6 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static)

The statement of the toxic effect relates to the analytically determined concentration.

EC50 (72 h) 0.92 mg/l (growth rate), Skeletonema costatum (ISO/DIS 10253)

The details of the toxic effect relate to the nominal concentration.

Microorganisms/Effect on activated sludge:

EC20 (30 min) approx. 15 mg/l, activated sludge, domestic (OECD Guideline 209, aerobic)

The details of the toxic effect relate to the nominal concentration.

Chronic toxicity to fish:

No observed effect concentration (97 d) 1.6 mg/l, Oncorhynchus mykiss (See user defined text. Flow through.)

The details of the toxic effect relate to the nominal concentration.

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (21 d), 2.5 mg/l, Daphnia magna (OECD Guideline 202, part 2, semistatic)

The statement of the toxic effect relates to the analytically determined concentration.

Terrestrial plants:

EC20 (19 d) > 450 mg/kg, Vicia sativa (OECD Guideline 208)

Not data available.

12.2 Persistence and degradability

Assessment biodegradation and elimination (H_2O):

Readily biodegradable (according to OECD criteria).

Elimination information:

90 - 100 % DOC reduction (28 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic)

Assessment of stability in water:

In contact with water the substance will hydrolyse slowly.

Information on Stability in Water (Hydrolysis):

$t_{1/2}$ > 1 a (50 °C), (Directive 92/69/EEC, C.7, pH7)

In contact with water the substance will hydrolyse slowly.

12.3 Bio-accumulative potential

Assessment bioaccumulation potential:

No significant accumulation in organisms is expected as a result of the distribution coefficient of noctanol/ water (log Pow).

Bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Mobility in soil (and other compartments if available)

Assessment transport between environmental compartments:

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is possible.

Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation,

Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT

(Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative). Self classification

12.4 Other adverse effects.

Chemical oxygen demand (COD): 1,385 mg/g

Biochemical oxygen demand (BOD) Incubation period 5 d: 235 mg/g

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

SECTION 13: Disposal Considerations

Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not burn, or use a cutting torch on, the empty drum.. Dispose of in accordance with all Government and Local regulations.

SECTION 14: Transport Information

Land transport (ADR/RID)

UN number	Not regulated
Proper Shipping Name	Not regulated
Transport hazard class	Not regulated
Packing Group	Not regulated

Hazard label(s)

SECTION 15: Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulatory information

SECTION 16: Other Information

Relevant R-phrases (Number and full text)
Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

R23/25	Toxic by inhalation and if swallowed.
R34	Causes burns.

Relevant H- and EUH-phrases (Number and full text)

H314	Causes severe skin burns and eye damage.
H302	Harmful if swallowed.
H315	Causes skin irritation
H400	Very toxic to aquatic life.
H290	May be corrosive to metals.

Notice to the reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.