

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

Version 2.9	Revision Date: 05.03.2024	SDS Number: R11819	Date of last issue: 11.08.2023 Date of first issue: 07.02.2017
----------------	------------------------------	-----------------------	---

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Manufacturer or supplier's details

Manufacturer :  
Supplier :  
Responsible Department :  
Emergency telephone number :

#### Recommended use of the chemical and restrictions on use

Recommended use : In-door use  
Application in a closed system  
medical device  
For further information, refer to the product technical data sheet.

Restrictions on use : Restricted to professional users.

### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Flammable liquids : Category 3  
Acute toxicity (Oral) : Category 4  
Acute toxicity (Inhalation) : Category 4  
Skin corrosion/irritation : Sub-category 1A  
Serious eye damage/eye irritation : Category 1  
Respiratory sensitisation : Category 1  
Skin sensitisation : Category 1  
Long-term (chronic) aquatic hazard : Category 3

#### GHS label elements

Hazard pictograms : 

Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.  
H302 + H332 Harmful if swallowed or if inhaled.  
H314 Causes severe skin burns and eye damage.

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

H317 May cause an allergic skin reaction.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

:

### Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P284 Wear respiratory protection.

### Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
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.  
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.

### Disposal:

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

### Other hazards which do not result in classification

None known.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Components

Chemical name	CAS-No.	Concentration (% w/w)
Glutaral	111-30-8	>= 20 - < 25
Ethanol	64-17-5	>= 10 - < 20
2-phosphonobutane-1,2,4-tricarboxylic acid	37971-36-1	>= 1 - < 10

## 4. FIRST AID MEASURES

General advice : Call a physician immediately.

If inhaled : Remove to fresh air immediately. Get medical attention immediately.

In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off immediately with plenty of water.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If swallowed : Rinse mouth.  
Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed : Harmful if swallowed or if inhaled.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Notes to physician : Keep under medical supervision for at least 48 hours.

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

For specialist advice physicians should contact the Poisons Information Service.

### 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : No hazardous combustion products are known
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

### 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Use personal protective equipment.
- Environmental precautions : Should not be released into the environment.
- Methods and materials for containment and cleaning up : Clean-up methods - small spillage  
Wipe up with absorbent material (e.g. cloth, fleece).  
Clean-up methods - large spillage  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

### 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking.
- Advice on safe handling : Prepare the working solution as given on the label(s) and/or the user instructions.
- Conditions for safe storage : Store in original container. Keep tightly closed.
- Recommended storage temperature : < 25 °C

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Glutaral	111-30-8	C	0,05 ppm	ACGIH
Ethanol	64-17-5	STEL	1.000 ppm	ACGIH

#### Personal protective equipment

- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

Respirator with a vapour filter (EN 141)

No personal respiratory protective equipment normally required.

Hand protection

Nitrile rubber Material : Protective gloves complying with EN 374.  
Break through time : > 480 min  
Glove thickness : 0,1 mm  
Protective index : Class 6  
: Peha-soft nitrile guard

Eye protection : Safety glasses with side-shields conforming to EN166

Skin and body protection : Work uniform or laboratory coat.  
Remove and wash contaminated clothing before re-use.  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Protective measures : Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.  
Avoid contact with the skin and the eyes.  
Ensure adequate ventilation, especially in confined areas.  
Keep away from food and drink.

---

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : light yellow

Odour : characteristic

pH : 2,5 (20 °C)

Boiling point/boiling range : not determined

Flash point : 47 °C  
Method: DIN 51755 Part 1

Density : 1,035 g/cm<sup>3</sup> (20 °C)

Solubility(ies)  
Water solubility : completely miscible

---

### 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : The product is chemically stable.

Possibility of hazardous reactions : None reasonably foreseeable.

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

Conditions to avoid	:	Heat Strong sunlight for prolonged periods.
Incompatible materials	:	Bases
Hazardous decomposition products	:	No decomposition if used as directed. No hazardous decomposition products are known.

---

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Harmful if swallowed or if inhaled.

#### Product:

Acute oral toxicity	:	Acute toxicity estimate: 770 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: 1,4 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 5.000 mg/kg Method: Calculation method

#### Components:

##### **Glutaral (CAS: 111-30-8):**

Acute oral toxicity	:	LD50 (Rat): 154 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 (Rat, female): 0,28 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: Corrosive to the respiratory tract.
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 2.000 mg/kg Method: OECD Test Guideline 402

##### **Ethanol (CAS: 64-17-5):**

Acute oral toxicity	:	LD50 Oral (Rat): 10.470 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 (Rat): 51 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403

##### **2-phosphonobutane-1,2,4-tricarboxylic acid (CAS: 37971-36-1):**

Acute oral toxicity	:	LD50 (Rat): > 6.500 mg/kg
Acute dermal toxicity	:	LD50 (Rat): > 4.000 mg/kg

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

### Skin corrosion/irritation

Causes severe burns.

#### Components:

##### **Glutaral (CAS: 111-30-8):**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Corrosive

##### **Ethanol (CAS: 64-17-5):**

Species : human skin  
Result : Mild skin irritation  
Remarks : Based on available data, the classification criteria are not met.

##### **2-phosphonobutane-1,2,4-tricarboxylic acid (CAS: 37971-36-1):**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation

### Serious eye damage/eye irritation

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### Components:

##### **Ethanol (CAS: 64-17-5):**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Irritating to eyes.

##### **2-phosphonobutane-1,2,4-tricarboxylic acid (CAS: 37971-36-1):**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Mild eye irritation

### Respiratory or skin sensitisation

#### Skin sensitisation

May cause an allergic skin reaction.

#### Respiratory sensitisation

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

#### Components:

##### **Glutaral (CAS: 111-30-8):**

Species : Guinea pig  
Result : The product is a skin sensitiser, sub-category 1A.

Result : May cause sensitisation by inhalation.

##### **Ethanol (CAS: 64-17-5):**

Species : Mouse  
Method : OECD Test Guideline 429  
Result : Does not cause skin sensitisation.

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

### 2-phosphonobutane-1,2,4-tricarboxylic acid (CAS: 37971-36-1):

Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Did not cause sensitisation on laboratory animals.

### Germ cell mutagenicity

Not classified based on available information.

### Carcinogenicity

Not classified based on available information.

### Reproductive toxicity

Not classified based on available information.

### STOT - single exposure

Not classified based on available information.

### Components:

#### Glutaral (CAS: 111-30-8):

Assessment : May cause respiratory irritation.

### STOT - repeated exposure

Not classified based on available information.

### Repeated dose toxicity

No data available

### Aspiration toxicity

Not classified based on available information.

### Experience with human exposure

No data available

### Experience with human exposure

No data available

### Neurological effects

No data available

---

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 41 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to microorganisms : IC50 (Pseudomonas putida): 19 mg/l  
Exposure time: 72 h  
Method: DIN 38 412 Part 8

#### Components:

#### Glutaral (CAS: 111-30-8):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,8 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2,1 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : EC50 ( Desmodesmus subspicatus (green algae)): 0,6 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201
- NOEC ( Desmodesmus subspicatus (green algae)): 0,025 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- M-Factor (Acute aquatic toxicity) : 1
- Toxicity to fish (Chronic toxicity) : NOEC: 1,6 mg/l  
Exposure time: 97 d  
Species: Oncorhynchus mykiss (rainbow trout)
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 5 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

### **Ethanol (CAS: 64-17-5):**

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 11.200 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 9.268 mg/l  
Exposure time: 48 h
- Toxicity to algae/aquatic plants : EC50 ( Chlorella vulgaris (Fresh water algae)): 275 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- NOEC ( Chlorella vulgaris (Fresh water algae)): 9,6 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

### **2-phosphonobutane-1,2,4-tricarboxylic acid (CAS: 37971-36-1):**

- Toxicity to fish : NOEC (Brachydanio rerio (zebrafish)): 1.042 mg/l  
Exposure time: 14 d  
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.071 mg/l  
Exposure time: 48 h
- Toxicity to algae/aquatic plants : ErC50 ( Scenedesmus capricornutum (fresh water algae)): > 1.081 mg/l  
Exposure time: 72 h
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 104 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211



# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

### Persistence and degradability

#### Product:

Biodegradability : Method: OECD Test Guideline 301D  
Remarks: Readily biodegradable, according to appropriate OECD test.

#### Components:

##### **Glutaral (CAS: 111-30-8):**

Biodegradability : Method: OECD Test Guideline 301A  
Remarks: Readily biodegradable, according to appropriate OECD test.

Biochemical Oxygen Demand (BOD) : Biochemical oxygen demand  
235 mg/g  
Incubation time: 5 d

Chemical Oxygen Demand (COD) : 1.385 mg/g

##### **Ethanol (CAS: 64-17-5):**

Biodegradability : Result: Readily biodegradable.

### Bioaccumulative potential

#### Components:

##### **Ethanol (CAS: 64-17-5):**

Partition coefficient: n-octanol/water : log Pow: -0,35

### Mobility in soil

No data available

### Other adverse effects

No data available

---

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Dispose of as hazardous waste in compliance with local and national regulations.  
The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Empty remaining contents.  
Clean container with water.  
Offer rinsed packaging material to local recycling facilities.

---

## 14. TRANSPORT INFORMATION

### ADR

UN number : UN 2920  
Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
(glutaral, ethanol)

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

Class : 8  
Subsidiary risk : 3  
Packing group : II  
Labels : 8 (3)  
Hazard Identification Number : 83  
Tunnel restriction code : (D/E)  
Limited quantity (LQ) : 1,00 L  
Environmentally hazardous : no

### UNRTDG

UN number : UN 2920  
Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
(glutaral, ethanol)  
Class : 8  
Subsidiary risk : 3  
Packing group : II  
Labels : 8 (3)  
Environmentally hazardous : no

### IATA-DGR

UN/ID No. : UN 2920  
Proper shipping name : Corrosive liquid, flammable, n.o.s.  
(glutaral, ethanol)  
Class : 8  
Subsidiary risk : 3  
Packing group : II  
Labels : Corrosive, Flammable Liquids  
Packing instruction (cargo aircraft) : 855  
Packing instruction (passenger aircraft) : 851

### IMDG-Code

UN number : UN 2920  
Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
(glutaral, ethanol)  
Class : 8  
Subsidiary risk : 3  
Packing group : II  
Labels : 8 (3)  
EmS Code : F-E, S-C  
Limited quantity (LQ) : 1,00 L  
Marine pollutant : no

### Transport in bulk according to IMO instruments

Not applicable for product as supplied.

### 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.

---

## 15. REGULATORY INFORMATION

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

### Other international regulations

#### The components of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

### 16. OTHER INFORMATION

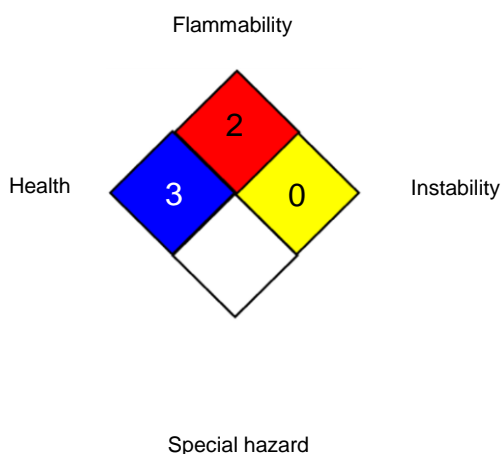
Revision Date : 05.03.2024  
Date format : yyyy/mm/dd

#### Safety datasheet sections which have been updated:

7. Handling and storage

#### Further information

##### NFPA:



##### HMIS® IV:

HEALTH	*	3
FLAMMABILITY		2
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 / STEL : Short-term exposure limit

ACGIH / C : Ceiling limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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 Organisation 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office

# SAFETY DATA SHEET

according to the Globally Harmonized System

## Korsolex-Endo-Disinfectant

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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

---

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. 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 a 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.

TC / EN