Korsolex basic

Version	Revision Date:	SDS Number:	Date of last issue: 26.10.2018
4.5	28.06.2019	R11820	Date of first issue: 14.03.2017

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Korsolex basic

Product code : R11820

Manufacturer or supplier's details

Manufacturer : BODE Chemie GmbH
Melanchthonstraße 27
22525 Hamburg
Tel.: +49 (0)40 / 54 00 60

Supplier :

Responsible Department : Scientific Affairs
Kundenservice@SIDA-BODE-CHEMIE.de

Emergency telephone number : Giftnotruf Göttingen
24h-Phone +49 (0)551 / 1 92 40

Recommended use of the chemical and restrictions on use

Recommended use : In-door use
Disinfectants and general biocidal products
For further information, refer to the product technical data sheet.

Restrictions on use : Restricted to professional users.

2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Skin corrosion/irritation : Sub-category 1B

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

Germ cell mutagenicity : Sub-category 1B

Carcinogenicity : Category 2

Short-term (acute) aquatic hazard : Category 2

Long-term (chronic) aquatic hazard : Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.
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.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
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.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

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

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Glutaral	111-30-8	>= 10 - < 20
Formaldehyde	50-00-0	>= 5 - < 10
(ethylenedioxy)dimethanol	3586-55-8	>= 3 - < 10
Tridecanol, branched, ethoxylated	69011-36-5	>= 3 - < 10
Alcohols, C12-14. ethoxylated	68439-50-9	>= 3 - < 10
but-2-yne-1,4-diol	110-65-6	>= 0,25 - < 1

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 with plenty of water.

In case of eye contact : Rinse immediately with plenty of lukewarm 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	:	None known.
Notes to physician	:	For specialist advice physicians should contact the Poisons Information Service. Keep under medical supervision for at least 48 hours.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray jet Dry powder Carbon dioxide (CO2) Foam
Unsuitable extinguishing media	:	none
Hazardous combustion products	:	No hazardous combustion products are known
Specific extinguishing methods	:	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
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 - large spillage Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean-up methods - small spillage Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	No special protective measures against fire required.
Advice on safe handling	:	Prepare the working solution as given on the label(s) and/or the user instructions.
Conditions for safe storage	:	Store at room temperature in the original container. Keep tightly closed.
Materials to avoid	:	Keep away from food and drink.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Formaldehyde	50-00-0	TWA	0,1 ppm	ACGIH
		STEL	0,3 ppm	ACGIH

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
formaldehyde	50-00-0	TWA	0,1 ppm	ACGIH
		STEL	0,3 ppm	ACGIH

Personal protective equipment

Respiratory protection : Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).

Filter type : ABEK-filter

Hand protection

In case of full contact: 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

Remarks : In case of full contact: Nitrile rubber

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.
Avoid breathing vapours, mist or gas.
Keep away from food and drink.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : green

Odour : characteristic

pH : 4 (20 °C)

Melting point/range : not determined

Boiling point/boiling range : 100 °C

Flash point : Not applicable

Flammability (solid, gas) : not auto-flammable

Vapour pressure : not determined

Density : 1,09 g/cm3 (20 °C)

Solubility(ies)
Water solubility : completely miscible

Viscosity
Viscosity, dynamic : 34 mPa.s (20 °C)

10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : The product is chemically stable.

Possibility of hazardous reactions : Avoid amines.

Conditions to avoid : Heat
Strong sunlight for prolonged periods.

Incompatible materials : Amines

Hazardous decomposition products : This product may release the following:
Formaldehyde (CAS: 50-00-0)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : LD50 Oral(Rat): 484 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 1,29 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: 2.891 mg/kg
Method: Calculation method

Components:

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

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.

(ethylenedioxy)dimethanol (CAS: 3586-55-8)**:**

Acute oral toxicity : LD50 (Rat, female): 760 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

Tridecanol, branched, ethoxylated (CAS: 69011-36-5)**:**

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg
Method: Expert judgement

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg
Method: Expert judgement

Alcohols, C12-14. ethoxylated (CAS: 68439-50-9)**:**

Acute oral toxicity : LD50 Oral (Rat): 2.000 mg/kg

but-2-yne-1,4-diol (CAS: 110-65-6)**:**

Acute inhalation toxicity : LC50 (Rat): 0,69 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Skin corrosion/irritation

Components:

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

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

Formaldehyde (CAS: 50-00-0)**:**

Result: Causes burns.

(ethylenedioxy)dimethanol (CAS: 3586-55-8)**:**

Result: Skin irritation

Tridecanol, branched, ethoxylated (CAS: 69011-36-5)**:**

Species: Rabbit
Result: No skin irritation

Alcohols, C12-14. ethoxylated (CAS: 68439-50-9)**:**

Result: Repeated exposure may cause skin dryness or cracking.

but-2-yne-1,4-diol (CAS: 110-65-6)**:**

Species: Rabbit
Method: OECD Test Guideline 404
Result: Corrosive after 3 minutes or less of exposure

Serious eye damage/eye irritation

Components:

(ethylenedioxy)dimethanol (CAS: 3586-55-8)**:**

Result: Risk of serious damage to eyes.

Tridecanol, branched, ethoxylated (CAS: 69011-36-5)**:**

Species: Rabbit
Method: OECD Test Guideline 437
Result: Risk of serious damage to eyes.

Alcohols, C12-14. ethoxylated (CAS: 68439-50-9)**:**

Result: Irreversible effects on the eye

but-2-yne-1,4-diol (CAS: 110-65-6)**:**

Species: Rabbit
Method: OECD Test Guideline 405
Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Product:

Remarks: May cause sensitisation by inhalation and skin contact.

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.

Formaldehyde (CAS: 50-00-0)**:**
Result: May cause sensitisation by skin contact.

(ethylenedioxy)dimethanol (CAS: 3586-55-8)**:**
Result: May cause sensitisation by skin contact.

Tridecanol, branched, ethoxylated (CAS: 69011-36-5)**:**
Test Type: Maximisation Test
Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.

but-2-yne-1,4-diol (CAS: 110-65-6)**:**
Result: May cause sensitisation by skin contact.

Germ cell mutagenicity
No data available

Carcinogenicity

Components:
Formaldehyde (CAS: 50-00-0)**:**
Carcinogenicity - Assessment : May cause cancer by inhalation.

Reproductive toxicity
No data available

STOT - single exposure

Components:
Glutaral (CAS: 111-30-8)**:**
Assessment: May cause respiratory irritation.

STOT - repeated exposure

Components:
but-2-yne-1,4-diol (CAS: 110-65-6)**:**
Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity
No data available

Aspiration toxicity
No data available

Experience with human exposure
No data available

Toxicology, Metabolism, Distribution
No data available

Neurological effects
No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

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
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	:	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

(ethylenedioxy)dimethanol (CAS: 3586-55-8)**:**

Toxicity to fish	:	LC50 (Fish): 71 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 28 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 4,62 mg/l Exposure time: 72 h

Tridecanol, branched, ethoxylated (CAS: 69011-36-5)**:**

Toxicity to fish	:	LC50 (Cyprinus carpio (Carp)): > 1 mg/l Exposure time: 96 h Test Type: flow-through test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): > 1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

Toxicity to microorganisms	:	IC50 (Pseudomonas putida): > 1.000 mg/l Exposure time: 16 h
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: > 1 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)

Alcohols, C12-14. ethoxylated (CAS: 68439-50-9)**:**

Toxicity to fish	:	LC50 (Fish): > 1 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 48 h
Toxicity to algae	:	IC50 (Scenedesmus capricornutum (fresh water algae)): > 1 mg/l Exposure time: 72 h NOEC (Scenedesmus capricornutum (fresh water algae)): 0,14 mg/l
M-Factor (Acute aquatic toxicity)	:	1

but-2-yne-1,4-diol (CAS: 110-65-6)**:**

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 49,3 mg/l Exposure time: 96 h Test Type: flow-through test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 26,8 mg/l Exposure time: 48 h Test Type: static test
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): 1.058 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 15 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Persistence and degradability

Product:

Biodegradability	:	Result: Biodegradable

Components:

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

Biodegradability	:	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

Bioaccumulative potential

No data available

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. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.
Contaminated packaging	:	Empty remaining contents. Store containers and offer for recycling of material when in accordance with the local regulations.

14. TRANSPORT INFORMATION

ADR

UN number	:	UN 3265
Proper shipping name	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (glutaral)
Class	:	8
Packing group	:	II
Labels	:	8
Hazard Identification Number	:	80
Tunnel restriction code	:	(E)

UNRTDG

UN number	:	UN 3265
Proper shipping name	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (glutaral)
Class	:	8
Packing group	:	II
Labels	:	8

IATA-DGR

UN/ID No.	:	UN 3265
Proper shipping name	:	Corrosive liquid, acidic, organic, n.o.s. (glutaral)
Class	:	8
Packing group	:	II
Labels	:	Class 8 - Corrosive
Packing instruction (cargo aircraft)	:	855
Packing instruction (passenger aircraft)	:	851

IMDG-Code

UN number	:	UN 3265
Proper shipping name	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (glutaral)
Class	:	8
Packing group	:	II
Labels	:	8
EmS Code	:	F-A, S-B
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

International Regulations

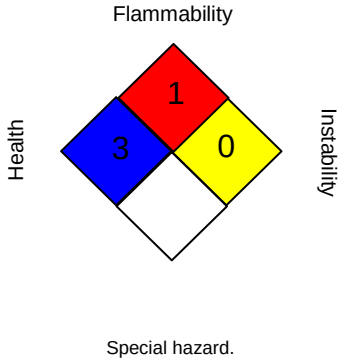
16. OTHER INFORMATION

Safety datasheet sections which have been updated:

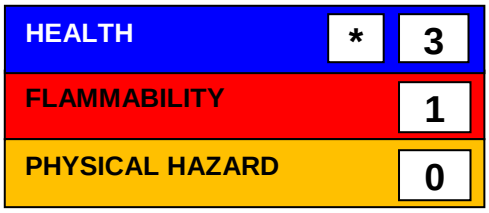
14. Transport information

Further information

NFPA:



HMIS® IV:



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 / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit

AICS - Australian Inventory of Chemical Substances; 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; CPR - Controlled Products Regulations; 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 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; 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

TC / EN