## **SAFETY DATA SHEET**

# Korsolex basic

Version Revision Date: SDS Number: Date of last issue: 15.08.2022 4.13 21.09.2022 R11820 Date of first issue: 14.03.2017

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Korsolex basic

Manufacturer or supplier's details

Manufacturer : BODE Chemie GmbH

Melanchthonstraße 27 22525 Hamburg (Germany) Tel.: +49 (0)40 / 54 00 60

Supplier

Responsible Department : Scientific Affairs

sds@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

Serious eye damage/eye irritation : Category 1

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

Germ cell mutagenicity : Category 2

Carcinogenicity : Category 1B

Long-term (chronic) aquatic haz-

ard

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.

H350 May cause 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
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	>= 0,1 - < 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

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.

Suspected of causing genetic defects.

May cause cancer.

Notes to physician : For specialist advice physicians should contact the Poisons Infor-

mation 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

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 pro-

cedures

Ensure adequate ventilation.

Use personal protective equipment.

Environmental precautions : Should not be released into the environment.

Methods and materials for con-

tainment 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.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Components with workplace control parameters

Components	CAS-No.	Value type	Control parameters	Basis
		(Form of ex-	/ Permissible con-	

		posure)	centration	
Glutaral	111-30-8	С	0,05 ppm	ACGIH
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 ex- posure)	Control parameters / Permissible con- centration	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

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 prac-

tice.

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 : 4,2 (20 °C)

Melting point/range : not determined

Boiling point/boiling range : 100 °C

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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 prod-

ucts

Formaldehyde (CAS: 50-00-0)

## 11. TOXICOLOGICAL INFORMATION

## **Acute toxicity**

Harmful if swallowed or if inhaled.

**Product:** 

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

Acute inhalation toxicity : Acute toxicity estimate: 1,47 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: 3.860 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

Formaldehyde (CAS: 50-00-0):

Acute oral toxicity : Acute toxicity estimate: 640 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 490 ppm

Test atmosphere: gas

Acute dermal toxicity : Acute toxicity estimate: 270 mg/kg

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

Acute oral toxicity : LD50 Oral (Rat): 2.000 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 oral toxicity : LD50 (Rat): 132 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0,69 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

GLP: yes

Acute dermal toxicity : LD50 (Rat): 659 mg/kg

Skin corrosion/irritation

Causes severe burns.

**Components:** 

Glutaral (CAS: 111-30-8):

Species : Rabbit

Method : OECD Test Guideline 404

Result : Corrosive

Formaldehyde (CAS: 50-00-0):

Result : Causes burns.

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

Species : Rabbit

Result : No skin irritation

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

Causes serious eye damage.

#### **Components:**

## 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 : Risk of serious damage to eyes.

### 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

#### Skin sensitisation

May cause an allergic skin reaction.

### Respiratory sensitisation

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

# **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 : The product is a skin sensitiser, sub-category 1A.

## 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

Suspected of causing genetic defects.

# Components:

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

Germ cell mutagenicity - As- : Suspected of inducing heritable mutations in the germ cells of hu-

sessment mans.

# Carcinogenicity

May cause cancer.

#### **Components:**

Formaldehyde (CAS: 50-00-0):

Carcinogenicity - Assessment : May cause cancer by inhalation.

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.

Components:

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

Assessment : May cause damage to organs through prolonged or repeated expo-

sure

Repeated dose toxicity

No data available

**Aspiration toxicity** 

Not classified based on available information.

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/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 toxici: :

ty)

Formaldehyde (CAS: 50-00-0):

Toxicity to fish : LC50 (Fish): 6,18 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 5,8 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 ( algae): 5,67 mg/l

Exposure time: 72 h

Toxicity to daphnia and other

aquatic invertebrates (Chronic

toxicity)

NOEC: 6,4 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

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

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 10 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/aquatic plants : EC50 ( Desmodesmus subspicatus (green algae)): > 1 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

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

Toxicity to fish : LC50 (Fish): 53,6 mg/l

Exposure time: 96 h

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/aquatic plants : 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

NOEC: 15 mg/l Exposure time: 21 d

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toxicity) Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

Persistence and degradability

**Product:** 

Biodegradability : Remarks: The surfactant(s) contained in this preparation com-

plies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at

the request of a detergent manufacturer.

**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

Formaldehyde (CAS: 50-00-0):

Biodegradability : Result: Readily biodegradable.

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

Biodegradability : Result: Totally biodegradable

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

Biodegradability : Result: Readily biodegradable.

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

Biodegradability : Biodegradation: 91 %

Exposure time: 19 d

Method: OECD Test Guideline 301E

Remarks: Readily biodegradable, according to appropriate OECD

test.

**Bioaccumulative potential** 

**Components:** 

Formaldehyde (CAS: 50-00-0):

Partition coefficient: n- : log Pow: 0,35 (25 °C)

octanol/water

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

Partition coefficient: n- : log Pow: -0,73 (25 °C)

octanol/water

Mobility in soil
No data available

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#### 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 discus-

sion with the waste disposal authorities.

Contaminated packaging : Empty remaining contents.

Store containers and offer for recycling of material when in accord-

ance 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)
Limited quantity (LQ) : 1,00 L

**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 : Corrosive Packing instruction (cargo air- : 855

craft)

Packing instruction (passenger : 851

aircraft)

**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
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 : Product contains substance(s) not listed on TSCA inventory.

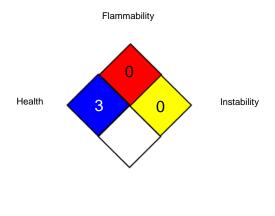
#### 16. OTHER INFORMATION

## Safety datasheet sections which have been updated:

15. Regulatory information

### **Further information**

#### NFPA:



Special hazard

#### 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

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 -

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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; 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.

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