

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.12.2020

Version number 303

Revision: 10.12.2020

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

#### 1.1 Product identifier

**Trade name** KT-Solve

**UFI:** PM00-Q0M3-R00T-F67A

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

No further relevant information available.

#### Application of the substance / the mixture

Cleaning agent / Cleaner

Industrial / commercial use

#### 1.3 Details of the supplier of the safety data sheet

##### Manufacturer/Supplier:

Chemtec Chemicals GmbH

August-Siemsen-Straße 13

D-21521 Dassendorf

Germany

Phone: +49 4104 91897 99

E-Mail: [info@ctc-chemtec.de](mailto:info@ctc-chemtec.de)

**Informing department:** Product safety department

#### 1.4 Emergency telephone number:

Medical Emergency information in case of poisoning:

Poison Information Center Mainz - 24h - Phone: +49 (0) 6131 19240 (advisory service in German or Englisch language)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

#### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

##### Hazard pictograms



GHS07

**Signal word** Warning

##### Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

##### Precautionary statements

P261 Avoid breathing mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Description: Mixture of the substances listed below with harmless additions (aqueous solution).

#### Dangerous components:

CAS: 112-34-5 EINECS: 203-961-6 Reg.nr.: 01-2119475104-44	2-(2-butoxyethoxy)ethanol ⚠ Eye Irrit. 2, H319	25-50%
CAS: 111-76-2 EINECS: 203-905-0 Reg.nr.: 01-2119475108-36	2-butoxyethanol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	10-25%
CAS: 1569-01-3 EINECS: 216-372-4 Reg.nr.: 01-2119474443-37	1-propoxypropan-2-ol ⚠ Flam. Liq. 3, H226; ⚠ Eye Irrit. 2, H319	10-25%

#### SVHC

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

#### Regulation (EC) No 648/2004 on detergents / Labelling for contents

non-ionic surfactants	≥5 - <15%
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Additional information For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice: Instantly remove any clothing soiled by the product.

#### After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness bring patient into stable side position for transport.

#### After skin contact

Wash skin with water using soap if available. If persistent irritation occurs, obtain medical attention.

#### After eye contact

Rinse immediately opened eye for several minutes under running water. Then consult doctor.

#### After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; instantly call for medical help.

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**4.2 Most important symptoms and effects, both acute and delayed***No further relevant information available.***Information for doctor***Cleaning of the stomach should only be carried out with endotracheal intubation. Danger of aspiration. Renew lipid coating of the skin in order to protect against dermatitis. Symptomatic treatment.***4.3 Indication of any immediate medical attention and special treatment needed***No further relevant information available.***SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents***CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.***For safety reasons unsuitable extinguishing agents** *Water with a full water jet.***5.2 Special hazards arising from the substance or mixture***Carbon monoxide may be evolved if incomplete combustion occurs. Not classified as flammable but will burn.**Thermal decomposition can lead to release of irritating gases and vapours**Do not inhale explosion and combustion gases.***5.3 Advice for firefighters****Protective equipment:***See section 8.**Wear full protective suit with self-contained breathing apparatus.***Additional information***Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.**Endangered containers in the surrounding area should be cooled with a water-hose.***SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures***Wear protective equipment and keep unprotected persons away.**Keep away from ignition sources**Avoid contact with skin, eyes and clothing. Do not breathe vapour. Ventilate contaminate area thoroughly. Shut off leaks, if possible without personal risk.***6.2 Environmental precautions:***Do not allow product to reach sewage system or water bodies.**If large amounts are released, the authorities must be informed.***6.3 Methods and material for containment and cleaning up:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).**Dispose of contaminated material as waste according to item 13.***6.4 Reference to other sections***See Section 7 for information on safe handling**See Section 8 for information on personal protection equipment.**See Section 13 for information on disposal.*

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Avoid repeated or long-term skin contact.

#### Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

#### 7.2 Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed. Store in cool, dry conditions.

#### Requirements to be met by storerooms and containers:

Observe official regulations on storage and handling of water hazardous substances

**Information about storage in one common storage facility:** Store away from oxidising agents.

**Further information about storage conditions:** Keep container tightly sealed

#### 7.3 Specific end use(s) No further relevant information available.

### SECTION 8: Exposure controls/personal protection

**Additional information about design of technical systems:** No further data; see item 7.

#### 8.1 Control parameters

##### Components with critical values that require monitoring at the workplace:

##### CAS: 112-34-5 2-(2-butoxyethoxy)ethanol (25-50%)

WEL Short-term value: 101.2 mg/m<sup>3</sup>, 15 ppm  
Long-term value: 67.5 mg/m<sup>3</sup>, 10 ppm

##### CAS: 111-76-2 2-butoxyethanol (10-25%)

WEL Short-term value: 246 mg/m<sup>3</sup>, 50 ppm  
Long-term value: 123 mg/m<sup>3</sup>, 25 ppm  
Sk, BMGV

##### CAS: 34590-94-8 Dipropylene glycol monomethyl ether (10-25%)

WEL Long-term value: 308 mg/m<sup>3</sup>, 50 ppm  
Sk

#### DNELs

##### CAS: 112-34-5 2-(2-butoxyethoxy)ethanol

Oral	DNEL (population)	5 mg/kg bw/day (Long-term - systemic effects)
Dermal	DNEL (worker)	83 mg/kg bw/day (Long-term - systemic effects)
	DNEL (population)	50 mg/kg bw/day (Long-term - systemic effects)
Inhalative	DNEL (worker)	101.2 mg/m <sup>3</sup> (Acute - local effects)
		67.5 mg/m <sup>3</sup> (Long-term - systemic and local effects)
	DNEL (population)	60.7 mg/m <sup>3</sup> (Acute - local effects)
		40.5 mg/m <sup>3</sup> (Long-term - systemic and local effects)

##### CAS: 111-76-2 2-butoxyethanol

Oral	DNEL (population)	6.3 mg/kg bw/day (Long-term - systemic effects)
Dermal	DNEL (worker)	89 mg/kg bw/day (Acute - systemic effects)
		125 mg/kg bw/day (Long-term - systemic effects)

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Inhalative	DNEL (population)	89 mg/kg bw/day (Acute - systemic effects)
		75 mg/kg bw/day (Long-term - systemic effects)
	DNEL (worker)	1,091 mg/m <sup>3</sup> (Acute - systemic effects)
		246 mg/m <sup>3</sup> (Acute - local effects)
		98 mg/m <sup>3</sup> (Long-term - systemic effects)
	DNEL (population)	426 mg/m <sup>3</sup> (Acute - systemic effects)
		147 mg/m <sup>3</sup> (Acute - local effects)
		59 mg/m <sup>3</sup> (Long-term - systemic effects)

#### PNECs

##### CAS: 112-34-5 2-(2-butoxyethoxy)ethanol

PNEC aqua	1.1 mg/l (fresh water)
	0.11 mg/l (marine water)
PNEC	200 mg/l (STP (sewage treatment plant))
PNEC	0.32 mg/kg dw (soil)
PNEC sediment	4.4 mg/kg dw (fresh water)
	0.44 mg/kg dw (marine water)

##### CAS: 111-76-2 2-butoxyethanol

PNEC aqua	8.8 mg/l (fresh water)
	0.88 mg/l (marine water)
PNEC	463 mg/l (STP (sewage treatment plant))
PNEC	2.33 mg/kg dw (soil)
PNEC sediment	34.6 mg/kg (fresh water)
	3.46 mg/kg (marine water)

#### Ingredients with biological limit values:

##### CAS: 111-76-2 2-butoxyethanol (10-25%)

BMGV	240 mmol/mol creatinine
	Medium: urine
	Sampling time: post shift
	Parameter: butoxyacetic acid

**Additional information:** The lists that were valid during the compilation were used as basis.

## 8.2 Exposure controls

### Personal protective equipment

#### General protective and hygienic measures

Keep away from food, beverages and fodder.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Gases, fumes and aerosols should not be inhaled.

**Breathing equipment:** Not necessary if room is well-ventilated.

#### Protection of hands:

Protective gloves.

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### Material of gloves

Nitrile rubber, NBR, recommended thickness of the material:  $\geq 0.4$  mm, penetration time:  $\geq 480$  min.

Butylrubber, BR, recommended thickness of the material:  $\geq 0.5$  mm, penetration time:  $\geq 480$  min.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Tightly sealed safety glasses.

#### Body protection:

Standard protective clothing. Chemical resistant safety-shoes or boots. If skin contact is possible, wear impenetrable protective clothing against this solvent.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### General Information

##### Appearance:

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Smell:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.

<b>pH-value:</b>	Not determined.
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##### Change in condition

<b>Melting point/freezing point:</b>	Not determined
<b>Initial boiling point and boiling range:</b>	101 °C

<b>Flash point:</b>	> 80 °C
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<b>Inflammability (solid, gaseous)</b>	Not applicable.
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<b>Ignition temperature:</b>	225 °C
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<b>Decomposition temperature:</b>	Not determined.
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<b>Self-inflammability:</b>	Product is not selfigniting.
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<b>Explosive properties:</b>	Product is not potentially explosive
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##### Critical values for explosion:

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

<b>Vapour pressure at 20 °C:</b>	1.3 hPa
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<b>Density at 20 °C</b>	0.952 g/cm <sup>3</sup>
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<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

<b>Solubility in / Miscibility with Water:</b>	Fully miscible
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<b>Partition coefficient: n-octanol/water:</b>	Not determined.
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<b>Viscosity:</b>	
dynamic:	Not determined.
kinematic:	Not determined.
<b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

**10.2 Chemical stability**

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:** strong oxidizing agents

**10.6 Hazardous decomposition products:**

Thermal decomposition can produce a variety of compounds, the precise nature of which will depend on the decomposition conditions.

Formation of carbon monoxide and carbon dioxide in case of fire.

### SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

**Acute toxicity** Based on available data, the classification criteria are not met.

**LD/LC50 values that are relevant for classification:**

**ATE (Acute Toxicity Estimates)**

Oral	LD50	5,417 mg/kg
Dermal	LD50	4,417 mg/kg (rabbit)
Inhalative	LC 50 / 4 h	41.7-83.3 mg/l (rat)

**Primary irritant effect:**

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye irritation.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

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**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability** No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.

#### Additional ecological information:

##### General notes:

The surfactant(s) contained in this preparation complies(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.

Water hazard class 1 (Self-assessment): slightly hazardous for water.

### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

The following advice is related to new material and not to any processed products. In case of a mixture with other products other disposal methods may become necessary. If in doubt seek advice from product supplier or from local authorities.

#### Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Contaminated water to separate by separator and dispose off in line with administrative regulations.

#### Waste disposal key number:

Since 01/01/99 the waste code numbers have not only been product-related but are also essentially application-related. The valid waste code number of the application can be obtained from the European waste catalogue.

**Uncleaned packagings:** Disposal must be made according to official regulations.

#### Recommendation:

After complete emptying and cleaning, send to be reconditioned or recycled.

**Rented packaging:** After optimal emptying, close immediately and return to the supplier without cleaning. Care should be taken that no other materials get into the packaging.

**Other containers:** After complete emptying and cleaning, send to be reconditioned or recycled.

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#### SECTION 14: Transport information

**14.1 UN-Number**

ADR, IMDG, IATA

Void

**14.2 UN proper shipping name**

ADR, IMDG, IATA

Void

**14.3 Transport hazard class(es)**

ADR, IMDG, IATA

Class

Void

**14.4 Packing group**

ADR, IMDG, IATA

Void

**14.5 Environmental hazards:**

Marine pollutant:

No

**14.6 Special precautions for user**

Not applicable.

**14.7 Transport in bulk according to**

Annex II of Marpol and the IBC Code

Not applicable.

Transport/Additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

Void

#### SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
**TSCA (Toxic Substances Control Act)**

All ingredients are listed.

**Canadian Domestic Substances List (DSL)**

All ingredients are listed.

**Philippines Inventory of Chemicals and Chemical Substances**

All ingredients are listed.

**Chinese Chemical Inventory of Existing Chemical Substances**

All ingredients are listed.

**Australian Inventory of Industrial Chemicals**

All ingredients are listed.

**Korean Existing Chemical Inventory**

All ingredients are listed.

**New Zealand Inventory of Chemicals**

All ingredients are listed.

**TCSI - Taiwan Chemical Substance Inventory**

All ingredients are listed.

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#### Existing Chemical Substances (Japan)

All ingredients are listed.

**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 55

#### National regulations

#### Information about limitation of use:

Employment restrictions concerning young persons must be observed.

#### Technical instructions (air):

Class	Share in %
NK	50-100

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### Relevant phrases

Complete wording of hazard statements and risk phrases (H- and R-phrases) mentioned in section 3. These phrases refer to the constituents. The labelling for this product is stated in section 2.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

**Department issuing data specification sheet:** see item 1: Informing department

#### Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

LEV: Local Exhaust Ventilation

RPE: Respiratory Protective Equipment

RCR: Risk Characterisation Ratio (RCR= PEC/PNEC and RCR= Estimated Exposure/DNEL)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

SVHC: Substance of Very High Concern

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity - oral – Category 4

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*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*

**\* Data compared to the previous version altered.**

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