

## Safety Data Sheet

according to UK REACH Regulation

### StoveEx

Revision date: 04.01.2024

Product code: 090693-CN

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

### 1.1. Product identifier

StoveEx

UFI: 11X2-P0E4-J00K-0CV3

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

#### Use of the substance/mixture

Electronics cleaner for spray and immersion plants

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

Company name:	kolb Cleaning Technology GmbH	
Street:	Karl-Arnold-Str. 12	
Place:	D-47877 Willich	
Telephone:	+49-2154-947938	Telefax: +49-2154-947947
e-mail:	info@kolb-ct.com	
Contact person:	Christian Linker	Telephone: +49-2324-97980
e-mail:	christian.linker@kolb-ct.com	
Internet:	www.kolb-ct.com	
Responsible Department:	Labor/ QS	

### 1.4. Emergency telephone number:

+49/ (0) 23 24/ 979817 (EU)  
+61 4 19 809 805 (Australia)  
+1 970 443 9233 (USA)  
Schweiz: 145

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

Skin Corr. 1; H314  
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### GB CLP Regulation

##### Hazard components for labelling

potassium hydroxide; caustic potash  
2-aminoethanol; ethanolamine  
Sodium metasilicate 5-hydrate

Signal word: Danger

#### Pictograms:



#### Hazard statements

H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.

#### Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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

#### Special labelling of certain mixtures

EUH208 Contains Acetic acid, chlorine, reaction products of 2-heptyl-4,5-dihydro-1H-imidazole-1-ethanol and sodium hydroxide, Acetic acid, chlorine, reaction products with 4,5-dihydro-2-nonyl-1H-imidazole-1-ethanol and sodium hydroxide. May produce an allergic reaction.

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Chemical characterization

water-based detergent

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
1310-58-3	potassium hydroxide; caustic potash			15 - < 30 %
	215-181-3	019-002-00-8		
	Acute Tox. 4, Skin Corr. 1A; H302 H314			
141-43-5	2-aminoethanol; ethanolamine			1 - < 5 %
	205-483-3	603-030-00-8		
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, STOT SE 3; H332 H312 H302 H314 H318 H335			
10213-79-3	Sodium metasilicate 5-hydrate			1 - < 5 %
	229-912-9		01-2119449811-37	
	Met. Corr. 1, Skin Corr. 1B, STOT SE 3; H290 H314 H335			

Full text of H and EUH statements: see section 16.

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
1310-58-3	215-181-3	potassium hydroxide; caustic potash	15 - < 30 %
	oral: ATE = 500 mg/kg Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2 Eye Irrit. 2; H319: >= 0,5 - < 2		
141-43-5	205-483-3	2-aminoethanol; ethanolamine	1 - < 5 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 2504 mg/kg; oral: LD50 = 1089 mg/kg STOT SE 3; H335: >= 5 - 100		
10213-79-3	229-912-9	Sodium metasilicate 5-hydrate	1 - < 5 %
	oral: LD50 = 1400 mg/kg		

#### Labelling for contents according to Regulation (EC) No 648/2004

< 5 % phosphates, < 5 % non-ionic surfactants, < 5 % amphoteric surfactants.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

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#### General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. Medical examination necessary even merely on suspicion of intoxication.

#### After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

#### After contact with skin

Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Remove contaminated, saturated clothing immediately. Wash thoroughly the body (shower or bath). After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

#### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

#### After ingestion

Rinse mouth immediately and drink 1 glass of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk. Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Do NOT induce vomiting. Call a physician in any case!

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. Dry extinguishing powder, Foam, Carbon dioxide (CO<sub>2</sub>), Extinguishing powder

#### 5.2. Special hazards arising from the substance or mixture

Non-flammable. Carbon dioxide (CO<sub>2</sub>), Burning produces heavy smoke., Carbon monoxide

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Special danger of slipping by leaking/spilling product. Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Cover drains.

#### 6.3. Methods and material for containment and cleaning up

##### Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Prevent spread over a wide area (e.g. by containment or oil barriers). Retain contaminated washing water and dispose it.

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#### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Handle and open container with care. Wear personal protection equipment (refer to section 8).

#### Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Personal protection equipment

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

#### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep/Store only in original container.

#### Hints on joint storage

No special measures are necessary.

### 7.3. Specific end use(s)

Professional cleaners for industrial use

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
141-43-5	2-Aminoethanol	1	2.5		TWA (8 h)	WEL
		3	7.6		STEL (15 min)	WEL
1310-58-3	Potassium hydroxide	-	2		STEL (15 min)	WEL

#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
10213-79-3	Sodium metasilicate 5-hydrate			
Consumer DNEL, long-term		oral	systemic	0,74 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	6,22 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	systemic	1,55 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	1,49 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,74 mg/kg bw/day

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#### PNEC values

CAS No	Substance	Value
Environmental compartment		
10213-79-3	Sodium metasilicate 5-hydrate	
Freshwater		7,5 mg/l
Marine water		1 mg/l
Micro-organisms in sewage treatment plants (STP)		1000 mg/l

#### 8.2. Exposure controls

##### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

##### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Suitable eye protection: goggles.

##### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. wear hand gloves material: nitril or pvc

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### Skin protection

Use of protective clothing.

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

## SECTION 9: Physical and chemical properties

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

Physical state:	Liquid
Colour:	yellow
Odour:	specific
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	100 °C
Flammability:	not applicable not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	not measurable
Decomposition temperature:	not determined
pH-Value (at 20 °C):	13,8
Water solubility:	full soluble in water.
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density (at 20 °C):	1,2 g/cm <sup>3</sup>
Relative vapour density:	not determined

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#### 9.2. Other information

##### Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

Not oxidising.

##### Other safety characteristics

Evaporation rate:

not determined

Solid content:

not determined

Viscosity / dynamic:

38 mPa·s

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Possibility of hazardous reactions.

#### 10.3. Possibility of hazardous reactions

Exothermic reaction with: Acid, Peroxides, Oxidizing agent. May cause strong formation of hydrogen by contact with amphoteric metals (e.g. alumina, lead, zinc) - danger of explosion.

#### 10.4. Conditions to avoid

none

#### 10.5. Incompatible materials

Keep away from: Acid, Oxidizing agent, Peroxides.

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in GB CLP Regulation

##### Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1310-58-3	potassium hydroxide; caustic potash				
	oral	ATE 500 mg/kg			
141-43-5	2-aminoethanol; ethanolamine				
	oral	LD50 1089 mg/kg	Rat		
	dermal	LD50 2504 mg/kg	Rabbit		
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
10213-79-3	Sodium metasilicate 5-hydrate				
	oral	LD50 1400 mg/kg	Ratte		

##### Irritation and corrosivity

Causes severe skin burns and eye damage. (On basis of test data)

Causes serious eye damage. (On basis of test data)

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#### Sensitising effects

Contains Acetic acid, chlorine, reaction products of 2-heptyl-4,5-dihydro-1H-imidazole-1-ethanol and sodium hydroxide, Acetic acid, chlorine, reaction products with 4,5-dihydro-2-nonyl-1H-imidazole-1-ethanol and sodium hydroxide. May produce an allergic reaction.

#### Carcinogenic/mutagenic/toxic effects for reproduction

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

#### 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.

#### Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 11.2. Information on other hazards

##### Other information

There are no other hazards that require special attention.

### SECTION 12: Ecological information

#### 12.1. Toxicity

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
141-43-5	2-aminoethanol; ethanolamine					
	Acute fish toxicity	LC50	349 mg/l	96 h		
	Acute algae toxicity	ErC50	2,8 mg/l	72 h		
	Acute crustacea toxicity	EC50	65 mg/l	48 h		
10213-79-3	Sodium metasilicate 5-hydrate					
	Acute fish toxicity	LC50	3185 mg/l	96 h	Zebraabrbliing (Danio rerio)	
	Acute crustacea toxicity	EC50	4857 mg/l	48 h	Daphnia magna (Wasserfloh)	

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

No information available.

#### Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

#### List of Wastes Code - residues/unused products

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

#### Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### Land transport (ADR/RID)

<b>14.1. UN number or ID number:</b>	UN 1814
<b>14.2. UN proper shipping name:</b>	POTASSIUM HYDROXIDE SOLUTION
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Classification code:	C5
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

### Inland waterways transport (ADN)

<b>14.1. UN number or ID number:</b>	UN 1814
<b>14.2. UN proper shipping name:</b>	POTASSIUM HYDROXIDE SOLUTION
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Classification code:	C5
Limited quantity:	1 L
Excepted quantity:	E2

### Marine transport (IMDG)

<b>14.1. UN number or ID number:</b>	UN 1814
<b>14.2. UN proper shipping name:</b>	POTASSIUM HYDROXIDE SOLUTION
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Special Provisions:	-
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-A, S-B

### Air transport (ICAO-TI/IATA-DGR)

<b>14.1. UN number or ID number:</b>	UN 1814
<b>14.2. UN proper shipping name:</b>	POTASSIUM HYDROXIDE SOLUTION
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8



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Special Provisions:	A3 A803	
Limited quantity Passenger:	0.5 L	
Passenger LQ:	Y840	
Excepted quantity:	E2	
IATA-packing instructions - Passenger:		851
IATA-max. quantity - Passenger:		1 L
IATA-packing instructions - Cargo:		855
IATA-max. quantity - Cargo:		30 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

Warning: strongly corrosive.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Subcategory according to Directive 2004/42/EC: Preparatory and cleaning - Pre-cleaner, VOC limit value: 200 g/l

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### Additional information

Regulation (EC) No. 648/2004 [Detergents regulation]. To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Abbreviations and acronyms

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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

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DNEL: Derived No Effect Level  
 DMEL: Derived Minimal Effect Level  
 PNEC: Predicted No Effect Concentration  
 ATE: Acute toxicity estimate  
 LL50: Lethal loading, 50%  
 EL50: Effect loading, 50%  
 EC50: Effective Concentration 50%  
 ErC50: Effective Concentration 50%, growth rate  
 NOEC: No Observed Effect Concentration  
 BCF: Bio-concentration factor  
 PBT: persistent, bioaccumulative, toxic  
 vPvB: very persistent, very bioaccumulative  
 RID: Regulations concerning the international carriage of dangerous goods by rail  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
 EmS: Emergency Schedules  
 MFAG: Medical First Aid Guide  
 ICAO: International Civil Aviation Organization  
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
 IBC: Intermediate Bulk Container  
 VOC: Volatile Organic Compounds  
 SVHC: Substance of Very High Concern  
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

#### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data

#### Relevant H and EUH statements (number and full text)

H290 May be corrosive to metals.  
 H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H318 Causes serious eye damage.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 EUH208 Contains Acetic acid, chlorine, reaction products of 2-heptyl-4,5-dihydro-1H-imidazole-1-ethanol and sodium hydroxide, Acetic acid, chlorine, reaction products with 4,5-dihydro-2-nonyl-1H-imidazole-1-ethanol and sodium hydroxide. May produce an allergic reaction.

#### Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*