

## Safety Data Sheet

according to UK REACH Regulation

### Potassium Chloride Solution, alkaline

Revision date: 12.06.2023

Product code: 14853.xxxxx

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

##### 1.1. Product identifier

Potassium Chloride Solution, alkaline

UFI: 764A-T1PM-800T-WVHA

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

###### Use of the substance/mixture

Use as laboratory reagent. The product is intended for research, analysis and scientific education.

###### Uses advised against

Any non-intended use.

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

Company name: MORPHISTO GmbH  
Street: Schumannstr. 142/144  
Place: D-63069 Offenbach  
Telephone: +49 (0) 69 / 400 3019-60      Telefax: +49 (0) 69 / 400 3019-64  
e-mail: info@morphisto.de  
Contact person: Morphisto GmbH  
e-mail: gefahrstoffmanagement@morphisto.de  
Internet: http://www.morphisto.de

##### 1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### GB CLP Regulation

Flam. Liq. 2; H225  
Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

##### 2.2. Label elements

###### GB CLP Regulation

Signal word: Danger

###### Pictograms:



###### Hazard statements

H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.

###### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P370+P378 In case of fire: Use sand, extinguishing powder or alcohol-resistant foam to extinguish.

Labelling of packages where the contents do not exceed 125 ml

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Signal word:

Danger

Pictograms:



#### 2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain any components that are considered to be hazardous according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in amounts of 0.1 % or more have endocrine disrupting properties. Toxicological information: The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name	Quantity
	EC No	Index No
	REACH No	
	Classification (GB CLP Regulation)	
64-17-5	ethanol, ethyl alcohol	70 - < 75 %
	200-578-6	603-002-00-5
	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319	
78-93-3	butanone; ethyl methyl ketone	< 1 %
	201-159-0	606-002-00-3
	01-2119457290-43	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066	
67-63-0	2-propanol	< 1 %
	200-661-7	603-117-00-0
	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
3734-33-6	Denatoniumbenzoate	< 1 %
	223-095-2	
	Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 3; H332 H302 H315 H318 H412	

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	
64-17-5	200-578-6	ethanol, ethyl alcohol	70 - < 75 %
		inhalation: LC50 = 124,7 mg/l (vapours); dermal: LD50 = >2000 mg/kg; oral: LD50 = >5000 mg/kg Eye Irrit. 2; H319: >= 50 - 100	
78-93-3	201-159-0	butanone; ethyl methyl ketone	< 1 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = 2054 mg/kg	
67-63-0	200-661-7	2-propanol	< 1 %
		dermal: LD50 = >5000 mg/kg; oral: LD50 = >5000 mg/kg	
3734-33-6	223-095-2	Denatoniumbenzoate	< 1 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = >2000 mg/kg; oral: ATE = 500 mg/kg	

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**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. Take off contaminated clothing. Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**After inhalation**

Provide fresh air. Remove casualty to fresh air and keep warm and at rest. If unconscious but breathing normally, place in recovery position and seek medical advice. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin irritation, seek medical treatment.

**After contact with eyes**

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 thoroughly with water. Let water be drunk in little sips (dilution effect). Call a doctor if you feel unwell.

**4.2. Most important symptoms and effects, both acute and delayed**

Acute effects: Mucous membrane irritation after eye contact or inhalation.

Delayed effects: Impairment of inhibitory functions of the central nervous system, skin redness, nausea after ingestion of large amounts.

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

Treat symptomatically. Percutaneously absorbed and inhaled substance causes next to irritation of affected mucous membranes only an indicated impairment of the inhibitory functions of the central nervous system, clinically recognizable as the beginning of a euphoric stage. At the same time face and skin redness is caused by dilation of peripheral blood vessels in the body.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Water spray jet, Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder.

**Unsuitable extinguishing media**

High power water jet.

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

Highly flammable. Vapours can form explosive mixtures with air. Vapours are heavier than air and will spread at floor level.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. 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**

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**General advice**

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Ventilate affected area. (refer to chapter 8.)

**For non-emergency personnel**

Clear danger zone. Follow emergency plan. Consult an expert.

**For emergency responders**

Move undamaged containers from immediate hazard area if it can be done safely. Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control.

**6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment. Explosion risk. Do not empty into drains.

**6.3. Methods and material for containment and cleaning up****For containment**

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Prevent spread over a wide area (e.g. by containment or oil barriers).

**For cleaning up**

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.

**Other information**

Ventilate affected area.

**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**

Provide adequate ventilation as well as local exhaustion at critical locations. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment (refer to section 8). Always close containers tightly after the removal of product.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air. Flammable vapours can accumulate in head space of closed systems. Heating causes rise in pressure with risk of bursting. Use only antistatically equipped (spark-free) tools. Wear anti-static footwear and clothing. Have fire-extinguishers in readiness before opening containers.

**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.

**Further information on handling**

General protection and hygiene measures: refer to chapter 8.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep/Store only in original container. Protect from direct sunlight. Ensure adequate ventilation of the storage area.

**Hints on joint storage**

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances. Gas. Explosive substances. Pyrophoric liquids and solids. Ammonium nitrate. Self-reactive substances and mixtures: Non-combustible

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toxic substances. Infectious substances.

#### Further information on storage conditions

Recommended storage temperature: 15 - 25°C.

#### 7.3. Specific end use(s)

The product is intended for research, analysis and scientific education.

### 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
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL
1310-73-2	Sodium hydroxide	-	2		STEL (15 min)	WEL

##### Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

##### DNEL/DMEL values

CAS No	Substance	DNEL type	Exposure route	Effect	Value
64-17-5	ethanol, ethyl alcohol	Worker DNEL, acute	inhalation	local	1900 mg/m <sup>3</sup>
		Worker DNEL, long-term	dermal	systemic	343 mg/kg bw/day
		Worker DNEL, long-term	inhalation	systemic	950 mg/m <sup>3</sup>
		Consumer DNEL, acute	inhalation	local	950 mg/m <sup>3</sup>
		Consumer DNEL, long-term	dermal	systemic	206 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	systemic	114 mg/m <sup>3</sup>
		Consumer DNEL, long-term	oral	systemic	87 mg/kg bw/day
		67-63-0	2-propanol	Worker DNEL, long-term	inhalation
Consumer DNEL, long-term	inhalation			systemic	89 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal			systemic	888 mg/kg bw/day
Consumer DNEL, long-term	oral			systemic	26 mg/kg bw/day
Consumer DNEL, long-term	dermal			systemic	319 mg/kg bw/day
1310-73-2	Sodium hydroxide	Worker DNEL, long-term	inhalation	local	1 mg/m <sup>3</sup>
		Consumer DNEL, long-term	inhalation	local	1 mg/m <sup>3</sup>

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#### PNEC values

CAS No	Substance	Value
Environmental compartment		
64-17-5	ethanol, ethyl alcohol	
Freshwater		0,96 mg/l
Freshwater (intermittent releases)		2,75 mg/l
Marine water		0,79 mg/l
Marine water (intermittent releases)		2,75 mg/l
Freshwater sediment		3,6 mg/kg
Marine sediment		2,9 mg/kg
Secondary poisoning		0,72 mg/kg
Micro-organisms in sewage treatment plants (STP)		580 mg/l
Soil		0,63 mg/kg
67-63-0	2-propanol	
Freshwater		140,9 mg/l
Marine water		140,9 mg/l
Freshwater sediment		552 mg/kg
Marine sediment		552 mg/kg
Secondary poisoning		160 mg/kg
Soil		28 mg/kg

#### 8.2. Exposure controls



##### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Provide washing facilities at the workplace, provide an eye shower or eyewash bottle and mark them.

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

###### Eye/face protection

Suitable eye protection: Eye glasses with side protection. Tightly sealed safety glasses. EN 166

###### 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.

In case of prolonged or frequently repeated skin contact: Tested protective gloves are to be worn:

Suitable material: Butyl rubber. 0,5mm. Breakthrough time (maximum wearing time): >480 min.

FKM (fluoro rubber) 0,4mm. Breakthrough time (maximum wearing time): >480 min.

continuous: CR (polychloroprene, chloroprene rubber) 0,5mm.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before using check leak tightness / impermeability.

###### Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

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**Respiratory protection**

In case of inadequate ventilation wear respiratory protection. With correct and proper use, and under normal conditions, breathing protection is not required. Suitable respiratory protective equipment: gas filtering equipment (EN 141). Type: A. Identification color: brown. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

**Thermal hazards**

Flame-retardant protective clothing. Wear anti-static footwear and clothing

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	colourless
Odour:	alcoholic
Odour threshold:	not determined
Melting point/freezing point:	-114 °C
Boiling point or initial boiling point and boiling range:	78 °C
Flammability:	not applicable
Lower explosion limits:	3,5 vol. %
Upper explosion limits:	15 vol. %
Flash point:	>17 °C
Auto-ignition temperature:	400 (Ethanol) °C
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic:	not determined
Water solubility:	easily soluble
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	58 hPa
(at 20 °C)	
Vapour pressure:	293 hPa
(at 50 °C)	
Density (at 20 °C):	0,83 g/cm <sup>3</sup>
Relative vapour density:	not determined

**9.2. Other information**
**Information with regard to physical hazard classes**
**Explosive properties**

Vapours can form explosive mixtures with air.

**Oxidizing properties**

The product is not: oxidising.

**Other safety characteristics**

Evaporation rate: not determined

**SECTION 10: Stability and reactivity**
**10.1. Reactivity**

Highly flammable. Vapours can form explosive mixtures with air.

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#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

Explosion risk in contact with: Oxidizing agents, strong. Nitric acid. Hydrogenium peroxide. Exothermic reactions with: Alkali metals. Alkaline earth metals. Reducing agents, strong. Phosphorus oxides. Peroxides. acetic Anhydride. Nitrates.

#### 10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. Keep away from heat. Protect from direct sunlight. Protect from moisture. In use may form flammable/explosive vapour-air mixture. Heating causes rise in pressure with risk of bursting.

#### 10.5. Incompatible materials

Strong acid Oxidizing agents. Alkali metals. Alkaline earth metals. Peroxides. Phosphorus oxides. Nitrogen oxides (NOx). Hydrogenium peroxide. Nitric acid. Hydrochloric acid. sulphuric acid Perchlorates. Chromium oxides. Acid chlorides. plastic and rubber.

#### 10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

## 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
64-17-5	ethanol, ethyl alcohol				
	oral	LD50 mg/kg	>5000	Rat	ECHA Dossier
	dermal	LD50 mg/kg	>2000	Rabbit	ECHA Dossier
	inhalation (4 h) vapour	LC50 mg/l	124,7	Rat	ECHA Dossier
78-93-3	butanone; ethyl methyl ketone				
	oral	LD50 mg/kg	2054	Ratte	SDB Lieferant
	dermal	LD50 mg/kg	>2000	Rabbit	ECHA Dossier
67-63-0	2-propanol				
	oral	LD50 mg/kg	>5000	Rat	ECHA Dossier
	dermal	LD50 mg/kg	>5000	Rabbit	ECHA Dossier
3734-33-6	Denatoniumbenzoate				
	oral	ATE mg/kg	500		
	dermal	LD50 mg/kg	>2000	Rat	suppliers SDS.
	inhalation vapour	ATE	11 mg/l		
	inhalation dust/mist	ATE	1,5 mg/l		



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#### **Irritation and corrosivity**

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

#### **Sensitising effects**

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

#### **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.

### **11.2. Information on other hazards**

#### **Endocrine disrupting properties**

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

#### **Further information**

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

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

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

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
64-17-5	ethanol, ethyl alcohol					
	Acute fish toxicity	LC50 mg/l	14200	96 h	Pimephales promelas (fathead minnow)	ECHA Dossier
	Acute algae toxicity	ErC50	275 mg/l	72 h	Chlorella vulgaris	ECHA Dossier
	Acute crustacea toxicity	EC50 mg/l	5012	48 h	Ceriodaphnia dubia (water flea)	ECHA Dossier
	Crustacea toxicity	NOEC	9,6 mg/l	9 d	Daphnia magna	ECHA Dossier
78-93-3	butanone; ethyl methyl ketone					
	Acute fish toxicity	LC50 mg/l	2993	96 h	Pimephales promelas	ECHA Dossier OECD 203
	Acute algae toxicity	ErC50 mg/l	1972	72 h	Pseudokirchnerella subcapitata	ECHA Dossier OECD 201
	Acute crustacea toxicity	EC50	308 mg/l	48 h	Daphnia magna	ECHA Dossier OECD 202
67-63-0	2-propanol					
	Acute fish toxicity	LC50 mg/l	9640	96 h	Pimephales promelas	ECHA Dossier OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	1800	96 h	Scenedesmus quadricauda	ECHA Dossier
	Acute crustacea toxicity	EC50 mg/l	>10000	48 h	Daphnia magna (24h)	ECHA Dossier OECD Guideline 202
3734-33-6	Denatoniumbenzoate					
	Acute fish toxicity	LC50 mg/l	>1000	96 h	Oncorhynchus mykiss (Rainbow trout)	suppliers SDS.
	Acute crustacea toxicity	EC50	13 mg/l	48 h	Daphnia magna (Big water flea)	suppliers SDS.

#### 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
64-17-5	ethanol, ethyl alcohol			
	other guideline	84%	20	ECHA Dossier
	Biodegradable.			
78-93-3	butanone; ethyl methyl ketone			
		98%	28	ECHA Dossier
	Readily biodegradable (according to OECD criteria).			
67-63-0	2-propanol			
	EU Method C.5/ EU Method C.6	53%	5	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			

#### 12.3. Bioaccumulative potential

The product has not been tested.

##### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol, ethyl alcohol	-0,31
78-93-3	butanone; ethyl methyl ketone	0,3
67-63-0	2-propanol	0,05

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**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**

Avoid release to the environment.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Do not allow to enter into surface water or drains. Consult the appropriate authorities about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Dispose of waste according to applicable legislation.

**Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 1170
<b>14.2. UN proper shipping name:</b>	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3



Classification code:	F1
Special Provisions:	144 601
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 1170
<b>14.2. UN proper shipping name:</b>	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3



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Special Provisions:	144
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-D

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

<b>14.1. UN number or ID number:</b>	UN 1170
<b>14.2. UN proper shipping name:</b>	ETHANOL SOLUTION
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3



Special Provisions:	A3 A58 A180
Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Warning: Combustible liquid.

**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 40, Entry 75

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

**National regulatory information**

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
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Water hazard class (D):	1 - slightly hazardous to water
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**15.2. Chemical safety assessment**

For the following substances of this mixture a chemical safety assessment has been carried out:

 ethanol, ethyl alcohol  
 butanone; ethyl methyl ketone  
 2-propanol

**SECTION 16: Other information**
**Changes**

**Safety Data Sheet**

according to UK REACH Regulation

**Potassium Chloride Solution, alkaline**

Revision date: 12.06.2023

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**Abbreviations and acronyms**

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  
 CAS: Chemical Abstracts Service  
 DNEL: Derived No Effect Level  
 DMEL: Derived Minimal Effect Level  
 PNEC: Predicted No Effect Concentration  
 ATE: Acute toxicity estimate  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%  
 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  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route  
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 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)  
 IMDG: International Maritime Code for Dangerous Goods  
 EmS: Emergency Schedules  
 MFAG: Medical First Aid Guide  
 IATA: International Air Transport Association  
 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
Flam. Liq. 2; H225	On basis of test data
Eye Irrit. 2; H319	Calculation method

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

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of

**Safety Data Sheet**

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product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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