

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 328 Kalium/Potassium, Sample cuvette; 1/3

Revision date: 19.03.2020

Product code: LCK328-1

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

1.1. Product identifier

LCK 328 Kalium/Potassium, Sample cuvette; 1/3

CAS No: 143-66-8

EC No: 205-605-5

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

Use of the substance/mixture

Water analysis

1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH

Street: Willstätterstr. 11

Place: D-40549 Düsseldorf

Telephone: +49 (0)211 5288-383

e-mail: SDS@hach.com

Internet: www.de.hach.com

Responsible Department: HACH LANGE Ltd.

5, Pacific Way

Salford Manchester M50 1DL - United Kingdom

Tel. +44 (0) 161 872 1487 * Fax +44 (0) 161 848 7324

e-Mail: info-uk@hach.com

HACH LANGE Ltd.

Unit 1, Chestnut Road Western Industrial Estate

IRL-Dublin 12

Tel. +353 (0)1 4602522

e-Mail: info-ie@hach.com

1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 3

Hazard Statements:

Toxic if swallowed.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Danger

Pictograms:



Hazard statements

H301

Toxic if swallowed.

Precautionary statements

P301+P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

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Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients**3.1. Substances****Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
143-66-8	Sodium tetraphenyl borate			100 %
	205-605-5			
	Acute Tox. 3; H301			

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

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

Take off contaminated clothing and shoes immediately.
Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air.

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.

After contact with eyes

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.
Consult a physician.

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

If swallowed: Nausea, Vomiting, Spasm,

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**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.
In the event of fire, wear self-contained breathing apparatus.

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Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Use mechanical handling equipment.

Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Avoid contact with skin and eyes.

Use barrier skin cream. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry and well-ventilated place.

Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

7.3. Specific end use(s)

Reagent for analysis

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

None known.

8.2. Exposure controls

Appropriate engineering controls

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Protective and hygiene measures

Wash hands before breaks and at the end of workday.

Eye/face protection

Safety glasses with side-shields

Hand protection

Use barrier skin cream.

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

Skin protection

Avoid contact with skin, eyes and clothing.

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Respiratory protection

Provide adequate ventilation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	colourless
Odour:	phenol-like
pH-Value (at 20 °C):	8 (5 % solution)

Changes in the physical state

Melting point:	> 300 °C
Initial boiling point and boiling range:	no data available
Sublimation point:	no data available
Softening point:	not applicable
Pour point:	not applicable
Flash point:	not applicable-

Flammability

Solid:	no data available
Gas:	no data available

Explosive properties

no data available

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	no data available

Auto-ignition temperature

Solid:	no data available
Gas:	no data available

Decomposition temperature: no data available

Oxidizing properties

no data available

Vapour pressure: no data available

Density: no data available

Bulk density: 500 kg/m³Water solubility: soluble
(at 20 °C)

Solubility in other solvents

no data available

Partition coefficient: no data available

Viscosity / dynamic: no data available

Viscosity / kinematic: no data available

Flow time: no data available

Vapour density: no data available

Evaporation rate: no data available

Solvent separation test: no data available

Solvent content: no data available

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9.2. Other information

Solid content: no data available

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

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Reacts with the following substances: Oxidizing agents, Acids, Bases

10.4. Conditions to avoid

No decomposition if used as directed.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No toxicology information is available.

Acute toxicity

No data is available on the product itself.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
143-66-8	Sodium tetraphenyl borate				
	oral	LD50 mg/kg	288	Ratte	

Irritation and corrosivity

No known effect.

Sensitising effects

No known effect.

Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

Aspiration hazard

No aspiration toxicity classification

Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1. Toxicity**

No information on ecology is available.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
143-66-8	Sodium tetraphenyl borate					
	Acute crustacea toxicity	EC50	32 mg/l	48 h	Daphnia magna (Water flea)	

12.2. Persistence and degradability

No data is available on the product itself.

12.3. Bioaccumulative potential

No data is available on the product itself.

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

In accordance with local and national regulations.

Our local agencies will accept used cuvettes to ensure their proper disposal.

List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 3316
14.2. UN proper shipping name:	Chemical kit
14.3. Transport hazard class(es):	9
14.4. Packing group:	II
Hazard label:	9



Classification code:	M11
Special Provisions:	251 340
Limited quantity:	SP251

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Excepted quantity: SP340
Transport category: 2
Hazard No: -
Tunnel restriction code: E

Other applicable information (land transport)

Not subject to transport regulations.

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
Hazard label: 9



Marine pollutant: -
Special Provisions: 251, 340
Limited quantity: See SP251
Excepted quantity: SP340
EmS: F-A, S-P

Other applicable information (marine transport)

Not subject to transport regulations.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
Hazard label: 9



Special Provisions: A44 A163
Limited quantity Passenger: 1 kg
Passenger LQ: Y960
Excepted quantity: E0
IATA-packing instructions - Passenger: 960
IATA-max. quantity - Passenger: 10 kg
IATA-packing instructions - Cargo: 960
IATA-max. quantity - Cargo: 10 kg

Other applicable information (air transport)

Not subject to transport regulations.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Use personal protective equipment.

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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

Other applicable information

These transport data apply to the entire pack

SECTION 15: Regulatory information

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

EU regulatory information

Additional information

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

National regulatory information

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

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

Revision Date 19.03.2020

Safety datasheet sections which have been updated: 2, 15

Revision Date 09.03.2017

Safety datasheet sections which have been updated: 14, 15

Revision: 24.09.2014

Safety datasheet sections which have been updated: 4, 6, 7-12, 14, 15

Relevant H and EUH statements (number and full text)

H301 Toxic if swallowed.

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.

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LCK 328 Kalium/Potassium, LCK 328 A; 2/3

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

1.1. Product identifier

LCK 328 Kalium/Potassium, LCK 328 A; 2/3

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

Use of the substance/mixture

Water analysis

1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH
Street: Willstätterstr. 11
Place: D-40549 Düsseldorf
Telephone: +49 (0)211 5288-383
e-mail: SDS@hach.com
Internet: www.de.hach.com
Responsible Department: HACH LANGE Ltd.
5, Pacific Way
Salford Manchester M50 1DL - United Kingdom
Tel. +44 (0) 161 872 1487 * Fax +44 (0) 161 848 7324
e-Mail: info-uk@hach.com

HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
IRL-Dublin 12
Tel. +353 (0)1 4602522
e-Mail: info-ie@hach.com

1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2. Label elements

Additional advice on labelling

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7732-18-5	Water			> 99 %
	231-791-2			
1303-96-4	disodium tetraborate decahydrate; borax decahydrate			< 1 %
	215-540-4	005-011-01-1		
	Repr. 1B; H360FD			
1310-73-2	sodium hydroxide; caustic soda			< 0,1 %
	215-185-5	011-002-00-6		
	Skin Corr. 1A; H314			

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

Specific concentration limits and M-factors

CAS No	EC No	Chemical name	Quantity
		Specific concentration limits and M-factors	
1303-96-4	215-540-4	disodium tetraborate decahydrate; borax decahydrate	< 1 %
		Repr. 1B; H360FD: $\geq 8,5 - 100$	
1310-73-2	215-185-5	sodium hydroxide; caustic soda	< 0,1 %
		Skin Corr. 1A; H314: $\geq 5 - 100$ Skin Corr. 1B; H314: $\geq 2 - < 5$ Skin Irrit. 2; H315: $\geq 0,5 - < 2$ Eye Irrit. 2; H319: $\geq 0,5 - < 2$	

Further Information

This product contains substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
disodium tetraborate decahydrate; borax decahydrate

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off contaminated clothing and shoes immediately.

After inhalation

Move to fresh air.

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.

After contact with eyes

Immediately flush eye(s) with plenty of water.

After ingestion

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.

Consult a physician.

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

None known.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

In the event of fire, wear self-contained breathing apparatus.

Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Reagent for analysis

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
1303-96-4	Disodium tetraborate, decahydrate	-	5		TWA (8 h)	WEL
1310-73-2	Sodium hydroxide	-	2		STEL (15 min)	WEL

Additional advice on limit values

None known.

8.2. Exposure controls

Appropriate engineering controls

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Protective and hygiene measures

Wash hands before breaks and at the end of workday.

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Eye/face protection

Safety glasses with side-shields

Hand protection

Use barrier skin cream.

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

Skin protection

Avoid contact with skin, eyes and clothing.

Respiratory protection

Provide adequate ventilation.

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

Physical state:	liquid
Colour:	colourless
Odour:	odourless
pH-Value (at 20 °C):	10

Changes in the physical state

Melting point:	no data available
Initial boiling point and boiling range:	100 °C
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	not applicable
Flash point:	-

Flammability

Solid:	not applicable
Gas:	not applicable

Explosive properties

not applicable

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	not applicable

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not applicable
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Oxidizing properties

not applicable

Vapour pressure:	no data available
Vapour pressure:	no data available
Density (at 20 °C):	1 g/cm ³
Bulk density:	not applicable
Water solubility: (at 20 °C)	soluble

Solubility in other solvents

no data available

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Partition coefficient:	no data available
Viscosity / dynamic:	no data available
Viscosity / kinematic:	no data available
Flow time:	no data available
Vapour density:	no data available
Evaporation rate:	no data available
Solvent separation test:	no data available
Solvent content:	no data available

9.2. Other information

Solid content:	not applicable
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SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

No decomposition if used as directed.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No toxicology information is available.

Acute toxicity

No data is available on the product itself.

Irritation and corrosivity

No known effect.

Sensitising effects

No known effect.

Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

No aspiration toxicity classification

Specific effects in experiment on an animal

No toxicology information is available.

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Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1. Toxicity**

No information on ecology is available.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
1310-73-2	sodium hydroxide; caustic soda					
	Acute fish toxicity	LC50 mg/l	45,4	96 h	Onchorhynchus mykiss	

12.2. Persistence and degradability

No data is available on the product itself.

12.3. Bioaccumulative potential

No data is available on the product itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1303-96-4	disodium tetraborate decahydrate; borax decahydrate	-1,53

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

No known effect.

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

In accordance with local and national regulations.

Our local agencies will accept used cuvettes to ensure their proper disposal.

List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number:**

UN 3316

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14.2. UN proper shipping name: Chemical kit
14.3. Transport hazard class(es): 9
14.4. Packing group: II
Hazard label: 9



Classification code: M11
Special Provisions: 251 340
Limited quantity: SP251
Excepted quantity: SP340
Transport category: 2
Hazard No: -
Tunnel restriction code: E

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
Hazard label: 9



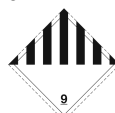
Marine pollutant: -
Special Provisions: 251, 340
Limited quantity: See SP251
Excepted quantity: SP340
EmS: F-A, S-P

Other applicable information (marine transport)

Not subject to transport regulations.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
Hazard label: 9



Special Provisions: A44 A163
Limited quantity Passenger: 1 kg
Passenger LQ: Y960
Excepted quantity: E0
IATA-packing instructions - Passenger: 960
IATA-max. quantity - Passenger: 10 kg

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IATA-packing instructions - Cargo: 960
IATA-max. quantity - Cargo: 10 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

no data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

Other applicable information

These transport data apply to the entire pack

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):
disodium tetraborate decahydrate; borax decahydrate

Restrictions on use (REACH, annex XVII):

Entry 30

National regulatory information

Water hazard class (D): -- non-hazardous to water

15.2. Chemical safety assessment

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

SECTION 16: Other information**Changes**

Revision Date 19.03.2020

Safety datasheet sections which have been updated: 2, 15

Revision Date 09.03.2017

Safety datasheet sections which have been updated: 2, 14

Revision: 07.04.2016

Safety datasheet sections which have been updated: 3

Revision: 25.09.2014

Safety datasheet sections which have been updated: 4, 6, 7-12, 14, 15

Relevant H and EUH statements (number and full text)

H314 Causes severe skin burns and eye damage.

H360FD May damage fertility. May damage the unborn child.

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

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

1.1. Product identifier

LCK 328 Kalium/Potassium, Zero solution; 3/3

UFI: X3FF-VF7C-080R-YJ0Y

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

Use of the substance/mixture

Water analysis

1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH
Street: Willstätterstr. 11
Place: D-40549 Düsseldorf
Telephone: +49 (0)211 5288-383
e-mail: SDS@hach.com
Internet: www.de.hach.com
Responsible Department: HACH LANGE Ltd.
5, Pacific Way
Salford Manchester M50 1DL - United Kingdom
Tel. +44 (0) 161 872 1487 * Fax +44 (0) 161 848 7324
e-Mail: info-uk@hach.com

HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
IRL-Dublin 12
Tel. +353 (0)1 4602522
e-Mail: info-ie@hach.com

1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements

Additional advice on labelling

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7732-18-5	Water			> 98 %
	231-791-2			
7664-93-9	sulphuric acid ... %			< 1 %
	231-639-5	016-020-00-8		
	Skin Corr. 1A; H314			
7758-98-7	copper sulphate pentahydrate			< 0,5 %
	231-847-6	029-004-00-0		
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Aquatic Acute 1, Aquatic Chronic 1; H302 H315 H319 H400 H410			

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

Specific concentration limits and M-factors

CAS No	EC No	Chemical name	Quantity
	Specific concentration limits and M-factors		
7664-93-9	231-639-5	sulphuric acid ... %	< 1 % %
	Skin Corr. 1A; H314: >= 15 - 100 Skin Irrit. 2; H315: >= 5 - < 15 Eye Irrit. 2; H319: >= 5 - < 15		
7758-98-7	231-847-6	copper sulphate pentahydrate	< 0,5 % %
	M akut; H400: M=100 M chron.; H410: M=10		

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

Take off contaminated clothing and shoes immediately.
Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air.
If symptoms persist, call a physician.

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.
If skin irritation persists, call a physician.

After contact with eyes

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Obtain medical attention.

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

None known.

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

Treat symptomatically.

SECTION 5: Firefighting measures
5.1. Extinguishing media

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Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

In the event of fire, wear self-contained breathing apparatus.

Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry and well-ventilated place.

Hints on joint storage

Do not store near combustible materials.

7.3. Specific end use(s)

Reagent for analysis

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
7664-93-9	Sulphuric acid (mist)	-	0.05		TWA (8 h)	WEL

Additional advice on limit values

None known.

8.2. Exposure controls

Appropriate engineering controls

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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Protective and hygiene measures

Wash hands before breaks and at the end of workday.

Eye/face protection

Safety glasses with side-shields

Hand protection

Use barrier skin cream.

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

Skin protection

Avoid contact with skin, eyes and clothing.

Respiratory protection

Provide adequate ventilation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	odourless
pH-Value (at 20 °C):	< 1

Changes in the physical state

Melting point:	no data available
Initial boiling point and boiling range:	100 °C
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	not applicable
Flash point:	not applicable

Flammability

Solid:	not applicable
Gas:	not applicable

Explosive properties

not applicable

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	not applicable

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not applicable
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Oxidizing properties

not applicable

Vapour pressure:	no data available
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Density (at 20 °C):	1 g/cm ³
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Bulk density:	not applicable
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Water solubility: (at 20 °C)	soluble
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Solubility in other solvents

no data available

Partition coefficient:

no data available

Viscosity / dynamic:

no data available

Viscosity / kinematic:

no data available

Flow time:

no data available

Vapour density:

no data available

Evaporation rate:

no data available

Solvent separation test:

no data available

Solvent content:

no data available

9.2. Other information

Solid content:

not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No toxicology information is available.

Acute toxicity

No toxicology information is available.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7758-98-7	copper sulphate pentahydrate				
	oral	ATE 500 mg/kg			

Irritation and corrosivity

No known effect.

Sensitising effects

No known effect.

Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

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STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

No aspiration toxicity classification

Specific effects in experiment on an animal

No toxicology information is available.

Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1. Toxicity

No information on ecology is available.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7758-98-7	copper sulphate pentahydrate					
	Acute fish toxicity	LC50	0,11 mg/l	96 h	Onchorhynchus mykiss	ECOTOX Database
	Acute crustacea toxicity	EC50 mg/l	0,0028	48 h	Pimephales promelas (fathead minnow)	

12.2. Persistence and degradability

No data is available on the product itself.

12.3. Bioaccumulative potential

No data is available on the product itself.

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

No known effect.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Our local agencies will accept used cuvettes to ensure their proper disposal.

List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - contaminated packaging

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160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Contaminated packaging

In accordance with local and national regulations. Our local agencies will accept used cuvettes to ensure their proper disposal.

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

14.1. UN number: UN 3316
14.2. UN proper shipping name: Chemical kit
14.3. Transport hazard class(es): 9
14.4. Packing group: II
Hazard label: 9



Classification code: M11
Special Provisions: 251 340
Limited quantity: SP251
Excepted quantity: SP340
Transport category: 2
Hazard No: -
Tunnel restriction code: E

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)
Not tested

Marine transport (IMDG)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
Hazard label: 9



Marine pollutant: -
Special Provisions: 251, 340
Limited quantity: See SP251
Excepted quantity: SP340
EmS: F-A, S-P

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
Hazard label: 9

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Special Provisions:	A44 A163
Limited quantity Passenger:	1 kg
Passenger LQ:	Y960
Excepted quantity:	E0
IATA-packing instructions - Passenger:	960
IATA-max. quantity - Passenger:	10 kg
IATA-packing instructions - Cargo:	960
IATA-max. quantity - Cargo:	10 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

no data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

Other applicable information

These transport data apply to the entire pack

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

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

15.2. Chemical safety assessment

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

SECTION 16: Other information**Changes**

Revision Date 19.03.2020

Safety datasheet sections which have been updated: 9, 2, 15

Revision Date 09.03.2017

Safety datasheet sections which have been updated: 9, 14

Revision: 25.09.2014

Safety datasheet sections which have been updated: 4, 6, 7-12, 14, 15

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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