

Conrad Electronic SE, Klaus-Conrad-Str. 1, D-92240 Hirschau

Item no. 101122

Material Safety Data Sheet

1. Product & Company Identification:

Product:	Potassium Chloride (KCl)
Manufacturer:	Conrad Electronic SE, Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date of issue:	08.09.2014

Relevant identified uses of the substance or mixture and uses advised against:

Recommended Use: Laboratory chemicals

Uses advised against: No Information available

2. Hazards Identification:

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Not hazardous

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

R-phrases: none

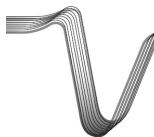
Label Elements: Signal Word / Hazard Statements: none

Other Hazards: No information available.

3. Composition / Information on Ingredients:

Component	EC-No.	Weight %	CAS-No.	DSD Classification 67/548/EEC	CLP Classification Regulation (EC) No. 1272/2008	REACH No.
Potassium Chloride	231-211-8	>95	7447-40-7	-	-	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16



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4. First Aid Measures:

Description of first aid measures:

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Ingestion

Do not induce vomiting. Obtain medical attention.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Notes to Physician

Treat symptomatically

5. Fire Fighting Measures:

Extinguishing media:

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors

Advice for fire-fighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures:

Personal precautions, protective equipment and emergency procedures

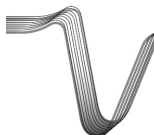
Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Environmental precautions

Should not be released into the environment.

Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.



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7. Handling and Storage:

Precautions for Safe Handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid dust formation.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

Specific End Uses

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8. Exposure Controls / Personal Protection

Control parameters:

Exposure limits:

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Component:

Potassium Chloride

Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
TWA: 5.0 mg/m ³				

Latvia	Lithuania	Luxembourg	Malta	Romania
TWA: 5 mg/m ³	TWA: 5 mg/m ³			

Russia	Slovak Republic	Slovenia	Sweden	Turkey
MAC: 5 mg/m ³				

Biological limit values

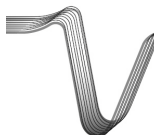
This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.



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Exposure controls:

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Eye Protection

Safety glasses with side-shields

Hand Protection

Protective gloves

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures

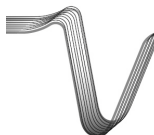
Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

9. Physical and Chemical Properties:

Physical State	Solid
Appearance	White
Odor	Odorless
pH	No information available.
Boiling Point/Range	1420°C / 2588°F@ 760 mmHg
Melting Point/Range	770°C / 1418°F
Flash Point	No information available.
Autoignition Temperature	No information available.
Water Solubility	340 g/l (20°C)
Specific Gravity	1.987
Molecular Formula	Cl K
Molecular Weight	74.54



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10. Stability and Reactivity:

Reactivity

Chemical Stability

Hygroscopic.

Possibility of Hazardous Reactions

Hazardous Polymerization: Hazardous polymerization does not occur.

Hazardous Reactions: None under normal processing..

Conditions to Avoid

Incompatible products, Excess heat, Avoid dust formation, Exposure to moist air or water.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Hydrogen chloride gas.

11. Toxicological Information:

Information on Toxicological Effects

Acute Toxicity

Component Information

Potassium Chloride

LD50 Oral	LD50 Dermal	LC50 Inhalation
2600 mg/kg (Rat)		

Chronic Toxicity

Carcinogenicity: There are no known carcinogenic chemicals in this product

Sensitization: No information available.

Mutagenic Effects: No information available

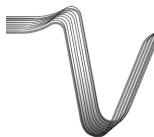
Reproductive Effects: No information available.

Developmental Effects: No information available.

Target Organs: None known.

Other Adverse Effects: See actual entry in RTECS for complete information The toxicological properties have not been fully investigated.

Endocrine Disruptor Information None known



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12. Ecological Information:

Toxicity

Ecotoxicity effects

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Potassium chloride	EC50: 2500 mg/L/72h	750-1020 mg/L LC50 96 h 1060 mg/L LC50 96 h		EC50: 825 mg/L/48h

Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Other adverse effects

No information available

13. Disposal Considerations:

Waste treatment methods

Waste from Residues / Unused Products:

Dispose of in accordance with local regulations

Contaminated Packaging:

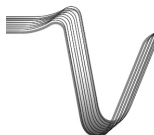
Empty containers should be taken to local recyclers for disposal

14. Transport Information:

IMDG/IMO: Not regulated

ADR: Not regulated

IATA: Not regulated



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15. Regulatory Information:

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

WGK Classification Hazardous to water/Class 1

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Potassium Chloride	231-211-8	-		X	X	-	X	X	X	X	X

Legend

TSCA	United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS	European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL	Canadian Domestic Substances List/Non-Domestic Substances List
PICCS	Philippines Inventory of Chemicals and Chemical Substances
ENCS	Japan Existing and New Chemical Substances
IECSC	China Inventory of Existing Chemical Substances
AICS	Australian Inventory of Chemical Substances
KECL	Existing and Evaluated Chemical Substances
Chemical Safety Assessment	

16. Other Information:

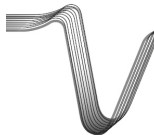
Full text of R-phrases referred to under sections 2 and 3

No information available.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.



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Material Safety Data Sheet

1. Product & Company Identification:

Product:	pH 4.01 Colored Buffer Solution
Manufacturer:	Conrad Electronic SE, Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date of issue:	08.09.2014

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Product Name: pH 4.01 Colored Buffer Solution

Common Synonyms: Nil

Chemical Family: Inorganic Salts

Formula: Complex

Formula Weight: NA

CAS No: 877-24-7

Niosh / Rtec No: NA

Product Use: Laboratory and Industrial Reagent

Eutech SAF-T-Data System: Health = 0, Flammability = 0, Reactivity = 0, Contact = 0

2. Safety:

For laboratory and industrial use only. Not for internal consumption. Avoid contact with eyes and skin

Component A: Potassium Hydrogen Phthalate

CAS NO: 8877-24-7

WEIGHT: NE

OSHA/PEL: NE

ACGIH/TLV: NE

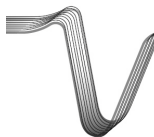
Component B: Inert Dye

CAS NO: Proprietary:

WEIGHT: NE

OSHA/PEL: NE

ACGIH/TLV: NE



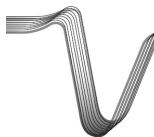
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3. Physical Data:

Appearance & Odor:	Liquid Red & Odorless
Physical State:	Liquid
Boiling Point:	102.4 °C
Vapour Pressure (mmHg):	24.756 (STP)
Melting Point:	NA
Vapour Density (T=0 °C):	4.579
Specific Gravity:	1
% Volatiles by Volume:	0
Solubility:	NA
pH:	4.01
Odor Threshold (ppm):	NA
Coefficient Water/Oil Distribution:	1
Evaporation Rate:	NA

4. Fire and Explosion Data:

Flash Point (Close Cup):	NA
Auto ignition Temperature:	NA
Flammable Limits:	Upper, NA Lower, NA
Fire Extinguishing Media:	Acid waste. Use extinguishing media appropriate for surrounding fire.
Special Fire-fighting procedures:	Firefighters should wear proper protective equipment and selfcontained breathing apparatus with full face-piece operated in positive pressure mode.
Unusual Fire and Explosion Hazards:	None
Toxic Gases produced:	None
Explosion data-sensitivity:	to mechanical impact: None identified. to static discharge: None identified.



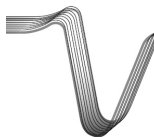
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5. Health Hazard Data:

Threshold limit value (TLV/TWWA):	Not established.
Toxicity of Components:	Not established
Carcinogenicity:	None identified.
Reproductive effects:	None identified.
Effects of overexposure:	
Inhalation:	None
Skin contact:	None
Eye contact:	None
Skin absorption:	None
Ingestion:	Ingestion of large quantities may cause gastro-intestinal irritation, nausea, vomiting, diarrhea
Chronic effects:	Not identified.
Target organs:	None
Medical condition aggravated by exposure:	Nil
Primary routes of entry:	Nil

6. Emergency and First-Aid-Procedures:

Ingestion :	If swallowed and the person is conscious, flush out stomach and seek medical attention
Inhalation:	Nil
Skin contact:	Nil
Eye contact:	In case of eye contact, immediately flush with plenty of water
Acute:	None
Chronic:	No
Flammability:	No
Pressure:	No
Reactivity:	Nil.
Extremely hazardous substance:	No
Toxic chemicals:	None
TSCA Inventory:	No



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7. Reactivity Data:

Stability:	Stable
Condition to avoid:	Humidity
Incompatibles:	Nil
Decomposition products:	Nil
Hazardous polymerization:	Will not occur

8. Spill and Disposal Procedures:

Steps to be taken in the events of a spill or discharge:

Wash away with water.

Disposal procedure:

Dispose in accordance with all applicable federal, state and local environmental regulations.

Ventilation:

None

Respiratory protection:

None

Eye/Skin protection:

Nil

9. Storage and Handling Precautions:

SAF-T-Data*Storage colour code: Orange.

Storage requirements: Keep container tightly closed. Keep in cool dark area away from light.

10. Transportation Data and Additional Information:

Domestic (D.O.T.)

Proper shipping name: Chemicals, N.O.S. (non-regulated)

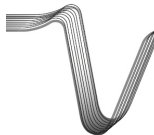
International (I.M.O.)

Proper shipping name: Chemicals, N.O.S. (non-regulated)

Marine pollutants: Acid

Air (I.C.A.O.)

Proper shipping name: Chemicals, N.O.S. (non-regulated)



Conrad Electronic SE, Klaus-Conrad-Str. 1, D-92240 Hirschau

Item no. 101122

Material Safety Data Sheet

1. Product & Company Identification:

Product:	pH 7.00 Colored Buffer Solution
Manufacturer:	Conrad Electronic SE, Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date of issue:	08.09.2014

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SITE SPECIFIC INFORMATION

No site specific information.

PRODUCT IDENTIFICATION

Product Name: pH 7.00 Colored Buffer Solution

Common Synonyms: Nil

Chemical Family: Inorganic Salts

Formula: Complex

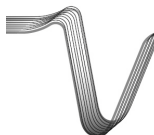
Formula Weight: NA

CAS No: 7778-77-0,7558-79-4

Niosh / Rtec No: NA

Product Use: Laboratory and Industrial Reagent

Eutech SAF-T-Data System: Health = 0, Flammability = 0, Reactivity = 0 , Contact = 0



Material Safety Data Sheet

2. Safety:

For laboratory and industrial use only. Not for internal consumption. Avoid contact with eyes and skin

Component A: Potassium Dihydrogen Phosphate

CAS NO: 7778-77-0

WEIGHT: NE

OSHA/PEL: NE

ACGIH/TLV: NE

Component B: Disodium Hydrogen Phosphate

CAS NO: 7558-79-4:

WEIGHT: NE

OSHA/PEL: NE

ACGIH/TLV: NE

Component C: Inert Dye

CAS NO: Proprietary

WEIGHT: NE

OSHA/PEL: NE

ACGIH/TLV: NE

3. Physical Data:

Appearance & Odor: Liquid Yellow & Odorless

Physical State: Liquid

Boiling Point: 102.4 °C

Vapour Pressure (mmHg): 24.756 (STP)

Melting Point: NA

Vapour Density (T=0 °C): 4.579

Specific Gravity: 1

% Volatiles by Volume: 0

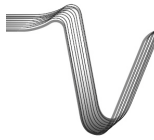
Solubility: NA

pH: 4.01

Odor Threshold (ppm): NA

Coefficient Water/Oil Distribution: 1

Evaporation Rate: NA



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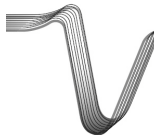
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4. Fire and Explosion Data:

Flash Point (Close Cup):	NA
Auto ignition Temperature:	NA
Flammable Limits:	Upper, NA Lower, NA
Fire Extinguishing Media:	Acid waste. Use extinguishing media appropriate for surrounding fire.
Special Fire-fighting procedures:	Firefighters should wear proper protective equipment and selfcontained breathing apparatus with full face-piece operated in positive pressure mode.
Unusual Fire and Explosion Hazards:	None
Toxic Gases produced:	None
Explosion data-sensitivity:	to mechanical impact: None identified. to static discharge: None identified.

5. Health Hazard Data:

Threshold limit value (TLV/TWWA):	Not established.
Toxicity of Components:	Not established
Carcinogenicity:	None identified.
Reproductive effects:	None identified.
Effects of overexposure:	
Inhalation:	None
Skin contact:	None
Eye contact:	None
Skin absorption:	None
Ingestion:	Ingestion of large quantities may cause gastro-intestinal irritation, nausea, vomiting, diarrhea
Chronic effects:	Not identified.
Target organs:	None
Medical condition aggravated by exposure:	Nil
Primary routes of entry:	Nil



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6. Emergency and First-Aid-Procedures:

Ingestion :	If swallowed and the person is conscious, flush out stomach and seek medical attention
Inhalation:	Nil
Skin contact:	Nil
Eye contact:	In case of eye contact, immediately flush with plenty of water
Acute:	None
Chronic:	No
Flammability:	No
Pressure:	No
Reactivity:	Nil.
Extremely hazardous substance:	No
Toxic chemicals:	None
TSCA Inventory:	No

7. Reactivity Data:

Stability:	Stable
Condition to avoid:	Humidity
Incompatibles:	Nil
Decomposition products:	Nil
Hazardous polymerization:	Will not occur

8. Spill and Disposal Procedures:

Steps to be taken in the events of a spill or discharge:

Wash away with water.

Disposal procedure:

Dispose in accordance with all applicable federal, state and local environmental regulations.

Ventilation:

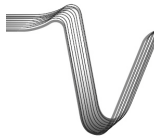
None

Respiratory protection:

None

Eye/Skin protection:

Nil



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9. Storage and Handling Precautions:

SAF-T-Data*Storage colour code: Orange.

Storage requirements: Keep container tightly closed. Keep in cool dark area away from light.

10. Transportation Data and Additional Information:

Domestic (D.O.T.)

Proper shipping name: Chemicals, N.O.S. (non-regulated)

International (I.M.O.)

Proper shipping name: Chemicals, N.O.S. (non-regulated)

Marine pollutants: Acid

Air (I.C.A.O.)

Proper shipping name: Chemicals, N.O.S. (non-regulated)