

Creation Date 07-Aug-2009 Revision Date 07-Aug-2009 Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name Potassium chloride

Cat No. 196770000; 196770010; 196770050

SynonymsRecommended Use
No information available.
Laboratory chemicals

Company Acros Organics BVBA

Janssen Pharmaceuticalaan 3a

2440 Geel, Belgium

Emergency Telephone Number For information in the US, call: 800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99 Emergency Number, US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300 CHEMTREC Phone Number, Europe: 703-527-3887

2. HAZARDS IDENTIFICATION

Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.

R -phrase(s)

none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	Weight %	EC No.	Classification
Potassium chloride	>95	EEC No. 231-211-8	-
7447-40-7			

For the full text of the R phrases mentioned in this Section, see Section 16



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4. 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

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.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

Protective Equipment and Precautions for Firefighters

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

Flash PointNo information available.MethodNo information available.

Autoignition Temperature No information available.

6. ACCIDENTAL RELEASE MEASURES

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

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Sweep up or vacuum up spillage and collect in suitable container for disposal Avoid dust

formation

Up



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7. HANDLING AND STORAGE

Handling Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin,

eyes and clothing. Avoid ingestion and inhalation. Avoid dust formation.

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

Specific use(s) No information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

The product does not contain any hazardous materials with occupational exposure limits established.

Occupational 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

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.

Eve Protection

Skin and body protection

Hand Protection

Tightly fitting safety goggles

Wear appropriate protective gloves and clothing to prevent skin exposure.

Protective gloves

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Solid **Physical State** White **Appearance**

Odor odorless

рΗ No information available. **Boiling Point/Range** 1420°C / 2588°F@ 760 mmHg

Melting Point/Range 770°C / 1418°F

Flash Point No information available.

Water Solubility 340 g/l (20°C) **Specific Gravity** 1.987 Molecular Formula CI K

Molecular Weight 74.54

10. STABILITY AND REACTIVITY



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10. STABILITY AND REACTIVITY

Stability Hygroscopic.

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

Incompatible MaterialsStrong oxidizing agentsHazardous Decomposition ProductsHydrogen chloride gas

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions . None under normal processing..

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

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

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

SensitizationNo information available.Neurological EffectsNo information available.Mutagenic EffectsNo information available.Reproductive EffectsNo information available.Developmental EffectsNo 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..

12. ECOLOGICAL INFORMATION

Ecotoxicity

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Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Potassium chloride	EC50: 2500 mg/L/72h			EC50: 825 mg/L/48h

Persistence and Degradability

Bioaccumulative Potential

No information available.

Mobility

No information available.

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused

Products

Dispose of in accordance with local regulations

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO Not regulated

ADR Not regulated

IATA Not regulated

15. REGULATORY INFORMATION

Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC

Labelling

R -phrase(s)

none

S -phrase(s)

S24/25 - Avoid contact with skin and eyes

International Inventories



Potassium chloride

Revision Date 07-Aug-2009

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Potassium chloride	231-211-8	-		Χ	Χ	-	Х	Х	Х	Χ	KE-29086
											X

16. OTHER INFORMATION

Prepared By Regulatory Affairs

Creation Date 07-Aug-2009

Revision Date 07-Aug-2009

Revision Summary "***", and red text indicates revision

Restrictions on useNo information available.

Training advice No information available.

Literary reference No information available.

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.

End of Safety Data Sheet

Rocker Scientific Co.,Ltd.

Add.: 11F,NO.402,SEC1,REN-AI RD., LINKOU SHIANG,TAIPEI COUNTY 244, TAIWAN(R.O.C)

Tel: 886-2-26033311 Fax: 886-2-26036622

MATERIAL SAFETY DATA SHEET

MSDS No: M168002

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Buffer Solution pH 4.01 ± 0.02

Catalog Number:168400

Rocker Scientific Co.,Ltd.

Add.: 11F,NO.402,SEC1,REN-AI RD., LINKOU SHIANG,TAIPEI COUNTY 244, TAIWAN(R.O.C)

Tel :+ 886-2-26033311

MSDS Number: M168002 Chemical Name: pH buffer Chemical Formula: Not applicable

Chemical Family: Not applicable **Hazard:** Practically non-toxic.

Date of MSDS Preparation:

Day:3

Month: November Year: 2009

2. COMPOSITION / INFORMATION ON INGREDIENTS

Demineralized Water

Percent Range: >95.0

Percent Range Units: weight / weight

Hazard: No effects anticipated.

Other components, each

Percent Range: < 1.0

Percent Range Units: volume / volume

Hazard: Any ingredient(s) of this product listed as "Other component(s)" is not considered a

health hazard

to the user of this product.

Potassium Acid Phthalate

TSCA CAS Number: 877-24-7 Percent Range: 1.0 - 5.0

Percent Range Units: weight / volume

Hazard: May cause irritation.

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: Clear, red

liquid Odor: None

Potential Health Effects:

Eye Contact: No effects are anticipated **Skin Contact:** No effects are anticipated

Skin Absorption: No effects anticipated

Target Organs: Not applicable

Ingestion: No Effects

4. FIRST AID

Eye Contact: Flush eyes with water. Call physician if irritation develops. **Skin Contact (First Aid):** Wash skin with soap and plenty of water.

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

Inhalation: None required.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material will not burn.

Flash Point: Not applicable Method: Not applicable Flammability Limits:

Lower Explosion Limits: Not applicable Upper Explosion Limits: Not applicable Autoignition Temperature: Not applicable Hazardous Combustion Products: Not applicable Fire / Explosion Hazards:

None reported

Static Discharge: None reported. **Mechanical Impact:** None reported

Extinguishing Media: Use media appropriate to surrounding fire conditions

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-

demand and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Containment Technique: Stop all leaks. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Absorb spill with inert material (e.g. dry sand, earth).

Clean-up Technique: Absorb spilled liquid with non-reactive sorbent material. Place material in a plastic bag. Mark bag 'Non-hazardous trash', and dispose of as normal refuse.

7. HANDLING / STORAGE

Handling: Avoid contact with eyes Wash thoroughly after handling.

Storage: Keep container tightly closed when not in use.

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

Skin Protection: disposable latex gloves **Inhalation Protection:** adequate ventilation

Precautionary Measures: Avoid contact with: eyes Wash thoroughly after handling.

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, red liquid

Physical State: Liquid

Odor: None **pH:** 4.01

Melting Point: < 0°C (< 32°F) Specific Gravity (water = 1): 1.002

ned **Solubility: Water:** Soluble **Acid:** Soluble

Other: Not determined

Metal Corrosivity:: Not determined

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Extreme

temperatures

Reactivity / Incompatibility: None reported Hazardous Decomposition:

None reported.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data: LD50: None reported **Skin and Eye Irritation Data:** None reported

Mutation Data: None reported

Reproductive Effects Data: None reported

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product.

Ingredient Ecological Information: --

No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: None

Special Instructions (Disposal): Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain.

Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.

NOTICE (**Disposal**): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

D.O.T.:

D.O.T. Proper Shipping Name: Not Currently Regulated

DOT Hazard Class:

NA **DOT Subsidiary Risk:** NA **DOT ID** Number: NA DOT Packing Group: NA

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Not Currently Regulated

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ICAO Hazard Class: NA ICAO Subsidiary Risk: NA ICAO ID Number: NA ICAO Packing Group: NA

I.M.O.:

I.M.O. Proper Shipping Name: Not Currently Regulated

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I.M.O. Hazard Class: NA I.M.O. Subsidiary Risk: NA I.M.O. ID Number: NA I.M.O. Packing Group: NA

15. REGULATORY INFORMATION

U.S. Federal Regulations:

O.S.H.A.: This product does not meet the criteria for a hazardous substance as defined in the

Communication Standard. (29 CFR 1910.1200)

E.P.A.:

S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): This product is not hazardous under

29 CFR.1910.1200 and therefore is not covered by Title III under SARA.

S.A.R.A. Title III Section 313 (40 CFR 372): This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

16. OTHER INFORMATION

Intended Use: Buffer

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor).

Air Contaminants, Federal Register, Vol. 54,No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's

Threshold Limit Values and Biological Exposure Indices for

Legend:

NA - Not Applicable w/w - weight/weight ND - Not Determined w/v - weight/volume NV - Not Available w/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

This information was compiled from current manufacturer's MSDS's of the component parts of the product.

Disclaimer: The Manufacturer believes that the information contained in the Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all inclusive nor fully adequate in every circumstance. Also, the suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements.

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MATERIAL SAFETY DATA SHEET

MSDS No: M168001

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Buffer Solution pH 7.00 ± 0.01

Catalog Number: 168700

Rocker Scientific Co.,Ltd.

Add.: 11F,NO.402,SEC1,REN-AI RD., LINKOU SHIANG, TAIPEI COUNTY 244, TAIWAN(R.O.C)

Tel:+886-2-26033311

MSDS Number: M168001 Chemical Name: pH buffer Chemical Formula: Not applicable Chemical Family: Not applicable Hazard: Practically non-toxic. Date of MSDS Preparation:

Day:3

Month: November

Year: 2009

2. COMPOSITION / INFORMATION ON INGREDIENTS

Potassium Phosphate, Monobasic

Percent Range: < 1.0
Percent Range Units: weight / weight

Hazard: May cause irritation.

Demineralized Water

Percent Range: >95.0
Percent Range Units: volume / volume

Hazard: No effects anticipated.

Other components, each

Percent Range: < 1.0

Percent Range Units: volume / volume

Hazard: Any ingredient(s) of this product listed as "Other component(s)" is not considered a health hazard to

the user of this product.

Sodium Phosphate, Dibasic

Percent Range: < 1.0

Percent Range Units: weight / weight

Hazard: May cause irritation.

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: yellow and clear liquid

Odor: No

Potential Health Effects:

Eye Contact: No effects anticipated Skin Contact: No effects anticipated

Medical Conditions Aggravated: None reported

Chronic Effects: No effects anticipated

4. FIRST AID

Flush eyes with water. Call physician if irritation develops. Eye Contact:

Skin Contact (First Aid): Wash skin with plenty of water.

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

Inhalation: None required.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material will not burn.

Flash Point: Not applicable Method: Not applicable Flammability

Limits:

Lower Explosion Limits: Not applicable Upper Explosion Limits: Not applicable Autoignition Temperature: Not applicable **Hazardous Combustion Products:** None reported Fire / Explosion Hazards: None

reported

Static Discharge: None reported. Mechanical Impact: None reported

Extinguishing Media: Use media appropriate to surrounding fire conditions

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full

protective gear.

6. ACCIDENTAL RELEASE MEASURES

Containment Technique: Stop all leaks. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Absorb spill with inert material (e.g. dry sand, earth).

Clean-up Technique: Absorb spilled liquid with non-reactive sorbent material. Place material in a plastic bag. Mark bag 'Non-hazardous trash', and dispose of as normal refuse.

7. HANDLING / STORAGE

Avoid contact with eyes Wash thoroughly after

handling. **Storage:** Protect from: heat Keep container tightly closed when not in use.

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields **Skin Protection:** Not applicable

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes Wash thoroughly after handling.

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Yellow and clear, liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: None pH: 7.0 at 25°C

Vapor Pressure: Not determined

Vapor Density (air = 1): Not determined

Boiling Point: ~100°C (~212°F) Melting Point: ~0°C (~32°F) Specific Gravity

(water = 1): ~ 1.0

Solubility: Water: Soluble Acid: Soluble

Other: Not determined

Metal Corrosivity: Not determined

10. STABILITY / REACTIVITY

Chemical Stability: Stable (be stored under proper conditions).

Conditions to Avoid: Heat Evaporation Reactivity / Incompatibility: None reported Hazardous Decomposition:

None reported

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data: LD50: None reported LC50: None

reported

Dermal Toxicity Data: None reported **Skin and Eye Irritation Data:** None reported

Mutation Data: None reported
Reproductive Effects Data: None
reported Ingredient Toxicological Data:

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No toxicological data available for the ingredients of this product.

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product.

Ingredient Ecological Information: --

No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: None

Special Instructions (Disposal): Open cold water tap completely, slowly pour the material to the drain. **Empty Containers:** Rinse three times with an appropriate solvent. Dispose of empty container as normal

trash.

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

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DOT Hazard Class: NA DOT Subsidiary Risk: NA DOT ID Number: NA DOT Packing Group:

NA *I.C.A.O.*:

I.C.A.O. Proper Shipping Name: Not Currently Regulated

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ICAO Hazard Class: NA ICAO Subsidiary Risk: NA ICAO ID Number: NA

I.M.O.:

I.M.O. Proper Shipping Name: Not Currently Regulated

I.M.O. Hazard Class: NA I.M.O. Subsidiary Risk: NA I.M.O. ID Number: NA I.M.O. Packing Group: NA

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