

Creation Date 24-Nov-2010

Revision Date 03-May-2012

Revision Number 2

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Description:

Potassium chlorate

Cat No.

418190000; 418190050; 418195000

Synonyms

Berthollet's Salt; Chlorate of Potash; Salt of Tarter

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

Recommended Use

Laboratory chemicals

Uses advised against

No Information available

Details of the supplier of the safety data sheet

Company

Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

E-mail address

begel.sdsdesk@thermofisher.com

Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01

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

Emergency Number, Europe: +32 14 57 52 99

Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300

CHEMTREC Phone Number, Europe: 001-703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute oral toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Chronic aquatic toxicity	Category 2
Oxidizing solids.	Category 1

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

Symbol(s)

O - Oxidizing

Xn - Harmful

N - Dangerous for the environment

R-phrases(s)

R 9 - Explosive when mixed with combustible material

Risk Combination Phrases

R20/22 - Harmful by inhalation and if swallowed

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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SECTION 2. HAZARDS IDENTIFICATION

Label Elements



Signal Word

Danger

Hazard Statements

- H411 - Toxic to aquatic life with long lasting effects
- H302 - Harmful if swallowed
- H332 - Harmful if inhaled
- H271 - May cause fire or explosion; strong oxidizer

Precautionary Statements - EU (§28, 1272/2008)

- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- P273 - Avoid release to the environment
- P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell
- P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

Other Hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Potassium chlorate 3811-04-9	EEC No. 223-289-7	>95	3811-04-9	Xn; R20/22 N; R51-53 O; R9	Acute Tox. 4 (H332) Acute Tox. 4 (H302) Aquatic Chronic 2 (H411) Ox. Sol. 1 (H271)	-

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

SECTION 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. Call a physician or Poison Control Center immediately.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

Notes to Physician

Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Cool closed containers exposed to fire with water spray. Water spray. Carbon dioxide (CO₂). Dry chemical. chemical foam.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Oxidizer: Contact with combustible/organic material may cause fire. Containers may explode when heated.

Advice for fire-fighters

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid dust formation.

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

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Keep combustibles (wood, paper, oil, etc) away from spilled material. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Use only under a chemical fume hood. Wear personal protective equipment. Keep away from clothing and other combustible materials. Avoid dust formation. Do not breathe dust. Do not breathe vapors or spray mist. Do not ingest.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Do not store near combustible materials.

Specific End Uses

SECTION 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 chlorate

Latvia	Lithuania	Luxembourg	Malta	Romania
TWA: 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.

Exposure controls

Engineering Measures

Use only under a chemical fume hood Ensure adequate ventilation, especially in confined areas Ensure that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye Protection

Goggles

Hand Protection

Protective gloves

Skin and body protection

Long sleeved clothing

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Powder, Solid
Appearance	White
odor	odorless
pH	5-6 73 g/l aq. sol.
Boiling Point/Range	No information available.
Melting Point/Range	356 - 368°C / 672.8 - 694.4°F
Decomposition temperature	400 °C
Flash Point	No information available.
Autoignition Temperature	No information available.
Water Solubility	73 g/L (20°C)
Molecular Formula	Cl K O3
Molecular Weight	122.55

SECTION 10. STABILITY AND REACTIVITY**Reactivity**

Reactive Hazard Yes
Chemical Stability

Oxidizer: Contact with combustible/organic material may cause fire.

Possibility of Hazardous Reactions

Hazardous Polymerization Hazardous polymerization does not occur.
Hazardous Reactions . No information available.

Conditions to Avoid

Excess heat, Incompatible products, Combustible material.

Incompatible Materials

Acids, Alcohols, Strong reducing agents, Hydrocarbons, Organic materials, Powdered metals.

Hazardous Decomposition Products

Hydrogen chloride gas. Chlorine.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on Toxicological Effects****Acute Toxicity**

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SECTION 11. TOXICOLOGICAL INFORMATION

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium chlorate	1870 mg/kg (Rat)	2000 mg/kg (Rabbit)	

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 Respiratory system Gastrointestinal tract (GI)
Other Adverse Effects See actual entry in RTECS for complete information
Endocrine Disruptor Information None known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Potassium chlorate		1750 mg/L LC50 96 h 13500 mg/L LC50 96 h		1093 mg/L EC50 = 24 h

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

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SECTION 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

SECTION 14. TRANSPORT INFORMATION

IMDG/IMO

UN-No 1485
Hazard Class 5.1
Packing Group II
Proper Shipping Name POTASSIUM CHLORATE

ADR

UN-No 1485
Hazard Class 5.1
Packing Group II
Proper Shipping Name POTASSIUM CHLORATE

IATA

UN-No 1485
Hazard Class 5.1
Packing Group II
Proper Shipping Name POTASSIUM CHLORATE

SECTION 15. REGULATORY INFORMATION

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

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Potassium chlorate	223-289-7	-		X	X	-	X	X	X	X	X

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

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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

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment

SECTION 16. OTHER INFORMATION

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

R 9 - Explosive when mixed with combustible material

R20/22 - Harmful by inhalation and if swallowed

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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Revision Summary

Reason for revision Not applicable

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.

End of Safety Data Sheet