spectrum®



SAFETY DATA SHEET

Preparation Date: 02/24/2015

Revision Date: 08/23/2018

Revision Number: G2

1. IDENTIFICATION

Product identifier

Product code: Product Name: P1254 POTASSIUM CHLORIDE, CRYSTAL, FCC

Other means of identification Synonyms: CAS #: RTECS # CI#:

No information available 7447-40-7 TS8050000 Not available

Recommended use of the chemical and restrictions on use

Recommended use:No information available.Uses advised againstNo information available

Supplier:

Spectrum Chemical Mfg. Corp 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000

| Order Online At: | https://www.spectrumchemical.com |
|----------------------------|----------------------------------|
| Emergency telephone number | Chemtrec 1-800-424-9300 |
| Contact Person: | Martin LaBenz (West Coast) |
| Contact Person: | Ibad Tirmiz (East Coast) |

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Not classified

Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components CAS-No. | | | Weight % | | | |
|---|--|---|--|--|--|--|
| | | 7447-40-7 | 100 | | | |
| | | | | | | |
| | 4. | FIRST AID MEASURES | | | | |
| First aid measures | | | | | | |
| General Advice: | have a pois | National Capital Poison Center in the United States can provide assistance if yo have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. | | | | |
| Skin Contact: | | | ater removing all contaminated clothing and s. Consult a physician if necessary. | | | |
| Eye Contact: | Flush eyes v persist, call | | cal attention if irritation occurs. If symptoms | | | |
| Inhalation: | | h air. If not breathing, give artificial medical attention. | respiration. If breathing is difficult, give | | | |
| Ingestion: | | ce vomiting without medical advice. a person. Consult a physician if nec | Never give anything by mouth to an essary. | | | |
| Most important symptoms and | effects, both acu | te and delayed | | | | |
| Symptoms | May cause of Ingestion ma May cause a May cause p | May cause eye/skin irritation May cause digestive (gastrointestinal) tract irritation Ingestion may cause nausea, vomiting, and diarrhea May cause abdominal discomfort May cause purging May affect the cardiovascular system | | | | |
| Indication of any immediate me | dical attention a | nd special treatment needed | | | | |
| Notes to Physician: | Treat sympt | omatically. | | | | |
| Protection of first-aiders First-Aid Providers: Avoid expose contaminated clothing and equipm | | | cessary protective clothing. Dispose of | | | |
| | 5. FI | RE-FIGHTING MEASURES | | | | |
| Extinguishing Media Suitable Extinguishing Media: | | | flammable. If it is involved in a fire, using an agent suitable for the type of | | | |
| Unsuitable Extinguishing Mo | edia: | No information ava | No information available. | | | |
| Specific hazards arising f | rom the chem | ical | | | | |
| Hazardous Combustion Pro | ducts: | No information ava | ilable. | | | |
| Specific hazards: | | No information ava | No information available. | | | |
| Special Protective Action | s for Firefight | ers | | | | |
| | | | | | | |

Specific Methods:

No information available.

Special Protective Equipment for Firefighters:

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 proceduresPersonal Precautions:Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin,
eyes and clothing. Remove all sources of ignition.Environmental precautions:Prevent further leakage or spillage if safe to do so. Prevent entry into waterways,
sewers, basements or confined areas.Methods and material for contairment and cleaning upMethods for containmentStop leak if you can do it without risk. Cover with plastic sheet to prevent
spreading.Methods for cleaning upSweep up and shovel into suitable containers for disposal. Clean contaminated
surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe dust. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Hygroscopic. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Acids Oxidizing agents Potassium permanganate Sulfuric acid Bromine trifluoride Bromine Trichloride Silver nitrate Moisture

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

| Components | CAS-No. | OSHA | NIOSH | ACGIH | AIHA WEEL |
|--------------------|-----------|------|-------|-------|-----------|
| Potassium Chloride | 7447-40-7 | None | None | None | None |

Canada

| Components | CAS-No. | Canada - Alberta | Canada - British Columbia | Canada - Ontario | Canada - Quebec |
|--------------------|-----------|------------------|------------------------------|------------------|-----------------|
| Potassium Chloride | 7447-40-7 | None | None | None | None |

Australia and Mexico

| Components | CAS-No. | Australia | Mexico |
|--------------------|-----------|-----------|--------|
| Potassium Chloride | 7447-40-7 | None | None |

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

| Eye protection: | Goggles or Safety glasses with side-shields. | | | |
|---------------------------|---|------------------------------------|--|--|
| Skin and body protection: | Long sleeved clothing Chemical resistant apron Gloves | | | |
| Respiratory protection: | Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds), inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent. | | | |
| Hygiene measures: | Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. | | | |
| | 9. PHYSICAL AND CHEMICAL | PROPERTIES | | |
| Physical state: Solid | Appearance: Granules. Fine granules. | Color: Colorless. White. | | |

S Odor: Formula: Taste Odorless. Saline. KCI Molecular/Formula weight (g/mole): Flammability: Flashpoint (°C/°F): No information available. 74.55 No information available Flash Point Tested according to: Autoignition Temperature (°C/°F): Lower Explosion Limit (%): Not available No information available No information available Product code: P1254 ame: POTASSIUM

| Produc | ct name: | POTAS | SIUM |
|--------|----------|---------|------|
| CHLO | RIDE, CF | RYSTAL, | FCC |

Upper Explosion Limit (%): No information available

Boiling point/range(°C/°F): 1420°C/2588°F

Specific gravity: 1.987

Evaporation rate: No information available

Odor threshold (ppm): No information available

Miscibility: No information available Melting point/range(°C/°F): 770°C/1418°F

Bulk density: No information available

pH: No information available

Vapor density: No information available

Partition coefficient (n-octanol/water): No information available

Solubility: Soluble in cold water Soluble in hot water Soluble in Glycerin Insoluble in Ether Insoluble in Acetone Solubility in Water: 35.5 g/100 g at 25 deg. C; 37.2 g/100 g at 30 deg. C; 40.2 g/100 g at 40 deg. C; 43.1 g/100 g at 50 deg. C

Decomposition temperature(°C/°F): No information available

Density (g/cm3): No information available

Vapor pressure @ 20°C (kPa): No information available

VOC content (g/L): No information available

Viscosity: No information available

10. STABILITY AND REACTIVITY

Reactivity Reactive with acids Reactive with oxidizing agents May react violently with Bromine trifluoride

| Chemical stability | |
|--------------------------------------|--|
| Stability: | Hygroscopic. Stable under recommended storage conditions. |
| Possibility of Hazardous Reactions: | Hazardous polymerization does not occur |
| Conditions to avoid: | Heat. Exposure to moist air. Incompatible materials. |
| Incompatible Materials: | Acids Oxidizing agents Potassium permanganate Sulfuric acid Bromine trifluoride Bromine Trichloride Silver nitrate Moisture |
| Hazardous decomposition products: | Potassium oxides. Hydrogen chloride. |
| Other Information Corrosivity: | No information available |
| Product code: P1254 | Product name: POTASSIUM |

JCT name: POTAS CHLORIDE, CRYSTAL, FCC

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure: Ingestion. Inhalation.

Acute Toxicity

Component Information

| · | | | | |
|---|---|------|--|--|
| Potassium Chloride | | | | |
| CAS-No. | 7447-40-7 | | | |
| LD50/oral/rat = = 2600 mg/kg Oral LD50 Rat LD50/oral/mouse = 1500 mg/kg Oral LD50 Mouse LD50/dermal/rabbit = No information available LD50/dermal/rat = No information available LC50/inhalation/rat = No information available LC50/inhalation/mouse = No information available Other LD50 or LC50information = No information available | | | | |
| Product Information | | | | |
| LD50/oral/rat = VALUE- Acute Tox Oral = 2600 | mg/kg | | | |
| LD50/oral/mouse = Value - Acute Tox Oral = 1500 | mg/kg | | | |
| LD50/dermal/rabbit VALUE-Acute Tox Dermal = No | information available | | | |
| LD50/dermal/rat VALUE -Acute Tox Dermal = No | o information available | | | |
| LC50/inhalation/rat VALUE-Vapor = No information available VALUE-Gas = No information available VALUE-Dust/Mist = No information available | | | | |
| LC50/Inhalation/mouse VALUE-Vapor = No information a VALUE - Gas = No information a VALUE - Dust/Mist = No information | vailable | | | |
| Symptoms_ | | | | |
| Skin Contact: | May cause skin irritation. | | | |
| Eye Contact: | May cause eye irritation. | | | |
| Inhalation | May cause irritation of respiratory tract. | | | |
| Ingestion | May cause digestive (gastointestinal) tract irritation. Ingestion may cause no vomiting, diarrhea. May cause abdominal discomfort. May cause purging. Naffect behavior/central nervous system(coma, change in motor activity, | | | |
| Product code: P1254 | Product name: POTASSIUM | 6/11 | | |

| | listlessness, vertigo, mental confusion, paresthesias, general weakness, flaccid paralysis), blood (change in clotting factor), cardiovascular system (hypotension, circulatory disturbances, cardiac arrhythmias, heart block), and respiration (cyanosis), urinary system (impairment of renal function) and may cause electrolytic imbalance (hyperkalemia). Acute potassium intoxication by mouth is rare because large single doses usually induce vomiting, and because in the absence of pre-existing kidney damage potassium is rapidly excreted. Maximal nontoxic oral dose of KCl in man varies from 0.2g to 1 g of potassium/kg/day depending upon efficiency of individual excretory mechanism; lower doses sometimes cause impairment of renal function as shown by reduced inulin, and urea clearance. |
|---------------------------------|--|
| Aspiration hazard | No information available. |
| Delayed and immediate effects a | as well as chronic effects from short and long-term exposure |
| Chronic Toxicity | No information available. |
| Sensitization: | No information available. |
| Mutagenic Effects: | No information available |

Carcinogenic effects:

Not considered carcinogenic.

| Components | CAS-No. | IARC | ACGIH - Carcinogens | NTP | OSHA HCS - Carcinogens | Australia - Notifiable Carcinogenic Substances | Australia - Prohibited Carcinogenic Substances |
|--------------------|-----------|------------|------------------------|------------|---------------------------|---|---|
| Potassium Chloride | 7447-40-7 | Not listed | Not listed | Not listed | Not listed | Not listed | Not listed |

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

| Reproductive toxicity | No data is available |
|------------------------|--------------------------|
| Reproductive Effects: | No information available |
| Developmental Effects: | No information available |
| Teratogenic Effects: | No information available |

Specific Target Organ Toxicity

| STOT - single exposure | No information available. |
|--------------------------|---------------------------|
| STOT - repeated exposure | No information available. |
| Target Organs: | Cardiovascular system. |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Ecotoxicity effects: | Aquatic environment. |
|---|--|
| Potassium Chloride - 7447-40-7 Freshwater Algae Data: Freshwater Fish Species Data: | 2500 mg/L EC50 Desmodesmus subspicatus 72 h 1060 mg/L LC50 Lepomis macrochirus 96 h static 1 750 - 1020 mg/L LC50 |

Product code: P1254

Product name: POTASSIUM CHLORIDE, CRYSTAL, FCC

| Water Flea Data: | Pimephales promelas 96 h static 1 825 mg/L EC50 Daphnia magna 48 h 83 mg/L EC50 Daphnia magna 48 h |
|--------------------------------|---|
| Persistence and degradability: | No information available |
| Bioaccumulative potential: | No information available. |
| Mobility: | No information available. |

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products: Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

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

| Components | CAS-No. | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|--------------------|-----------|---------------------------|---------------------------|---------------------------|---------------------------|
| Potassium Chloride | 7447-40-7 | None | None | None | None |

14. TRANSPORT INFORMATION

| DOT | |
|--------------------------|---|
| UN-No: | Not Regulated |
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Subsidiary Class | No information available |
| Packing group: | No information available |
| Emergency Response Guide | No information available |
| Number | |
| Marine Pollutant | No data available |
| DOT RQ (lbs): | No information available |
| Special Provisions | No Information available |
| Symbol(s): | No information available |
| Description: | No information available |
| TDG (Canada) | |
| UN-No: | Not Regulated |
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Subsidiary Risk: | No information available |
| Packing Group: | No information available |
| Marine Pollutant | No Information available |
| Description: | No information available |
| · | |
| ADR | |
| UN-No: | Not Regulated |
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Packing Group: | No information available |
| Subsidiary Risk: | No information available |
| IMO / IMDG | |
| UN-No: | Not Regulated |
| | 0 |
| Product code: P1254 | Product name: POTASSIUM CHLORIDE, CRYSTAL, FCC |

| Proper Shipping Name: | No information available |
|-----------------------|--------------------------|
| Hazard Class: | No information available |
| Subsidiary Risk: | No information available |
| Packing Group: | No information available |
| Marine Pollutant | No information available |
| | |

RID

| UN-No: | Not Regulated |
|-----------------------|--------------------------|
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Subsidiary Risk: | No information available |
| Packing Group: | No information available |

ICAO

| Not Regulated |
|--------------------------|
| No information available |
| |

ΙΑΤΑ

| (17) | |
|-----------------------|--------------------------|
| UN-No: | Not Regulated |
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Subsidiary Risk: | No information available |
| Packing Group: | No information available |
| ERG Code: | No information available |
| Special Provisions | No information available |
| | |

15. REGULATORY INFORMATION

International Inventories

| Components | CAS-No. | U.S. TSCA | KOREA KECL | Philippines (PICCS) | Japan ENCS | CHINA | Australia (AICS) | EINECS-No. |
|--------------------|-----------|-------------------|---------------------|------------------------|--------------------|---------|---------------------|----------------------|
| Potassium Chloride | 7447-40-7 | PresentACTIV E | Present KE-29086 | Present | Present (1)-228 | Present | Present | Present 231-211-8 |

U.S. Regulations

Potassium Chloride

FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1622

FDA - 21 CFR - Total Food Additives 150.141, 150.161, 166.110, 184.1622, 201.306

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<u>Chemicals Known to the State of California to Cause Reproductive Toxicity:</u> This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

| Components | CAS-No. | Carcinogen | Developmental Toxicity | Male | Female |
|--------------------|-----------|------------|------------------------|--------------|--------------|
| | | - | | Reproductive | Reproductive |
| | | | | Toxicity | Toxicity: |
| Potassium Chloride | 7447-40-7 | Not Listed | Not Listed | Not Listed | Not Listed |

CERCLA/SARA

| Components CAS-No. | CERCLA - | Section 302 | Section 302 | Section 313 - | Section 313 - |
|--------------------|-----------|-------------|-------------|-------------------|---------------|
| - | Hazardous | Extremely | Extremely | Chemical Category | Reporting |

| | | Substances and their Reportable Quantities | Hazardous Substances and TPQs | Hazardous Substances and RQs | | de minimis |
|--------------------|-----------|--|-------------------------------------|------------------------------------|------|------------|
| Potassium Chloride | 7447-40-7 | None | None | None | None | None |

U.S. TSCA

| Components | | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|--------------------|-----------|---|---|
| Potassium Chloride | 7447-40-7 | Not Applicable | Not Applicable |

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component Potassium Chloride 7447-40-7 (100) WHMIS 2015 Hazard Classification Not a dangerous product according to HPR classification criteria

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

Non-controlled

Components

Potassium Chloride

WHMIS 1988 Uncontrolled product according to WHMIS classification criteria including 23.8%

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

| Components | CAS-No. | | Canada (DSL) | | Canada (NDSL) |
|--------------------|-----------|-----------|--------------|----------|---------------------------------|
| Potassium Chloride | 7447-40-7 | | Present | | Not Listed |
| | | | | | |
| Components | | CAS-No. | | CEPA | Schedule I - Toxic Substances |
| Potassium Chloride | | 7447-40-7 | | Not list | ed |
| Components | | CAS-No. | | | - 2010 Greenhouse Gases Subject |
| | | | | | datory Reporting |
| Potassium Chloride | | 7447-40-7 | | Not list | ed |

EU Classification

EU GHS - SV - CLP 1272/2008

| Components | CAS-No. | EU GHS - SV - CLP (1272/2008) |
|--------------------|-----------|-------------------------------|
| Potassium Chloride | 7447-40-7 | |

EU - CLP (1272/2008)

R-phrase(s)

not determined (not applicable)

S -phrase(s)

Product code: P1254

none

| Components | CAS-No. | Classification | Concentration Limits: | Safety Phrases |
|--|-----------|----------------|--------------------------|----------------|
| Potassium Chloride | 7447-40-7 | | No information | |
| The preduct is clearified in coverdence with Append VI to Directive CZ/E40/EEC | | | | |

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger: None.

| 16. OTHER INFORMATION | | | | |
|---|---|--|--|--|
| Preparation Date: Revision Date: Prepared by: | 02/24/2015 08/23/2018 Sonia Owen | | | |
| Disclaimer: | All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein. | | | |

End of Safety Data Sheet