HI-VALLEY CHEMICAL
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Calcium Chloride

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Calcium Chloride
SDS Number: R-045
Revision Date: 3/29/2016
Chemical Formula: CaCl2
Supplier Details: High Valley Products, Inc.
1134 West 850 North
Centerville, Utah 84014
Emergency: PERS: 800-633-8253
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2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Serious Eye Damage/Eye Irritation, 2 A

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: WARNING

GHS Hazard Pictograms:

GHS Hazard Statements:

H319 - Causes serious eye irritation

GHS Precautionary Statements:

P264 - Wash skin thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+313 - Get medical advice/attention.

3 COMPOSITION/INFORMATION OF INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
10043-52-4	94-97%	Calcium chloride (CaCl2)
7447-40-7	<2%	Potassium chloride (KCl)
7647-14-5	<1%	Sodium Chloride
7732-18-5	<1%	Water

4 FIRST AID MEASURES

Inhalation: If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: Promptly flush skin with soap water until all chemical is removed. If skin irritation occurs: Get medical advice/attention. Remove contaminated clothing and wash before reuse.

Eye Contact: Eye Irritation. Direct abrasion of cornea from solid, erythema and burn from reaction with water, conjunctival swelling and cornea opacification from hypertonic solution and heat. Corneal eye pain, redness, acute corneal thickening or whitening.

Ingestion: Consumption of solids or hypertonic solutions causes nausea, vomiting, and increased thirst.

5 FIRE FIGHTING MEASURES

This material does not burn.
Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for surrounding fire.

Special hazards arising from the substance or mixture
Formed under fire conditions: hydrogen chloride gas; calcium oxide

Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
No data

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Wear respiratory protection. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions:
Do not let product enter drains.

Methods and materials for containment and cleaning up:
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

Handling Precautions: Heat developed during diluting or dissolving is very high. Use cool water when diluting or dissolving (temperature less than 80°F, 27°C). Avoid contact with eyes, skin, and clothing. Do not swallow. Wash thoroughly after handling. Wear personal protective equipment

Storage Requirements: Store in cool/dry area.
Protect from moisture.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment: Eye Protection: Wear safety glasses with side-shields. For dusty operations or when handling solutions of the material, wear chemical goggles.

Skin and Body Protection: Wear clean, body-covering clothing.

Hand Protection: Use gloves chemically resistant to this material. If hands are cut or scratched, use gloves
chemically resistant to this material even for brief exposures. Examples of preferred glove barrier materials

include: Neoprene, Polyvinyl chloride ("PVC" or "vinyl"), Nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In dusty or misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: High efficiency particulate air (HEPA) N95. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

Exposure Guidlines

Calcium chloride (CaCl2) (10043-52-4) [94-97%] : no data available

Potassium chloride (KCl) (7447-40-7) [<2%] : no data available

Sodium Chloride (7647-14-5) [<1%] : no data available

Water (7732-18-5) [<1%] : no data available

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White Pellets
Physical State:	Solid
Odor:	None
Odor Threshold:	No data available
Solubility:	No data available
Spec Grav./Density:	No data available
Viscosity:	No data available
Boiling Point:	No data available
Freezing/Melting Pt.:	772 °C (1,422 °F)
Flash Point:	No data available
Partition Coefficient:	No data available
Vapor Pressure:	No data available
Vapor Density:	No data available
pH:	No data available
Evap. Rate:	No data available
Auto-Ignition Temp:	No data available
Decomp Temp:	No data available
UFL/LFL:	No data available

10 STABILITY AND REACTIVITY

Reactivity:	Hygroscopic. Liberates large amounts of heat when dissolving in water or aqueous acids.
Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	No data available
Materials to Avoid:	Heat is generated when mixed with water or aqueous acids. Spattering and boiling can occur. Calcium

chloride is incompatibl with:
bromide trifluoride, 2-furan percarboxylic acid. Contact with zinc forms flammable hydrogen gas, which can be explosive. Catalyzes exothermic polymerization of
methyl vinyl ether. Attacks metals in the presence of moisture, and may release flammable hydrogen gas. Reaction of
bromide impurity with oxidizing materials may generate trace levels of impurities such as bromates.

Hazardous Decomposition: Formed under fire conditions: hydrogen chloride gas, calcium oxide

11 TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY DATA:

Calcium chloride, anhydrous	LD50 Oral:	1021 mg/kg - Oral Acute Toxicity Estimate (ATE)
	LD50 Dermal:	2687 mg/kg - Dermal Acute Toxicity Estimate (ATE)
	LC50 Inhalation:	No data is available

COMPONENT TOXICITY DATA:

Note: The component toxicity data is populated by the LOLI database and may differ from the product toxicity data given.

Component	LD50 Oral:	LD50 Dermal:	LC50 Inhalation:
Calcium chloride 10043-52-4	1000 mg/kg (Rat)	2630 mg/kg (Rat)	-----
Potassium Chloride 7447-40-7	2600 mg/kg (Rat)	-----	-----
Sodium Chloride 7647-14-5	3 g/kg (Rat)	10 g/kg (Rabbit)	42 g/m3 (1 hr-Rat)

POTENTIAL HEALTH EFFECTS:

Eye contact: For solid: May cause slight eye irritation, mechanical injury only. Dust formation should be avoided, as dust can cause severe eye irritation with corneal injury.

Skin contact: Brief contact is essentially nonirritating to skin. Prolonged contact may cause skin irritation, even a burn. Not classified as corrosive to the skin according to DOT guidelines. May cause more severe response if skin is damp, abraded (scratched or cut), or covered by clothing, gloves, or footwear.

Inhalation: Dust may cause irritation to upper respiratory tract (nose and throat).

Ingestion: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause local mucosal damage to esophagus and stomach. Swallowing may result in gastrointestinal irritation or ulceration.

Chronic Effects: Chronic exposures to calcium chloride that cause irritation may cause a chronic dermatitis or mucosal membrane problem. For the minor component(s):
POTASSIUM CHLORIDE: In animals, effects have been reported on the following organs after ingestion: Gastrointestinal tract, heart, and kidney. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use. SODIUM CHLORIDE: Medical experience with sodium chloride has shown a strong association between elevated blood pressure and prolonged dietary overuse. Related effects could occur in the kidneys.

SIGNS AND SYMPTOMS OF EXPOSURE:

Solution and or solids may be visible on the skin and or eyes. Localized redness, warmth, and irritation consistent with mechanism of injury: abrasion, burn, hypertonic solution.

12 ECOLOGICAL INFORMATION

Calcium chloride ($CaCl_2$) (10043-52-4) [94-97%]

Information on ecological effects

Toxicity:
Toxicity to fish LC50 - Lepomis macrochirus - 10,650 mg/l - 96 h.
Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 2,400 mg/l - 48 h.
other aquatic (OECD Test Guideline 202) invertebrates

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

Potassium chloride (KCl) (7447-40-7) [<2%]

Information on ecological effects

Toxicity:
Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 880 mg/l - 96 h.
mortality NOEC - Pimephales promelas (fathead minnow) - 500 mg/l - 7 d
mortality LOEC - Pimephales promelas (fathead minnow) - 1,000 mg/l - 7 d
Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 83 mg/l - 48 h.
other aquatic invertebrates

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life.

Sodium Chloride (7647-14-5) [<1%]

Information on ecological effects

Toxicity:
Toxicity to fish LC50 - Lepomis macrochirus (Bluegill) - 5,840 mg/l - 96 h.
Toxicity to daphnia and NOEC - Daphnia - 1,500 mg/l - 7 d.
other aquatic invertebrates
LC50 - Daphnia magna (Water flea) - 1,661 mg/l - 48 h

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

Water (7732-18-5) [<1%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: not applicable

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14 TRANSPORT INFORMATION

Non D.O.T. regulated

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

Calcium chloride (CaCl2) (10043-52-4) [94-97%] TSCA

Potassium chloride (KCl) (7447-40-7) [<2%] TSCA

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Regulatory CODE Descriptions
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TSCA = Toxic Substances Control Act
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16 OTHER INFORMATION

Disclaimer:
Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

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