SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form: Mixture
Substance name: Potassium Chloride
Product code: CCH, CH2, SOF
Product group: Commercial product
Other means of identification: Muriate of Potash, Chicklet Grade

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

Use of the substance/preparation: Industrial Chicklets

1.3. Details of the supplier of the safety data sheet

PCS Sales (USA), Inc.
1101 Skokie Blvd.
Suite 400
Northbrook, IL 60062
T 800-241-6908 / 847-849-4200

Suite 500
122 1st Avenue South
Saskatoon, Saskatchewan Canada S7K7G3
T 800-667-0403 (Canada) / 800-667-3930 (USA)

SDS@PotashCorp.com - www.PotashCorp.com

1.4. Emergency telephone number

Emergency number: 800-424-9300
CHEMTREC

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Eye Irrit. 2B  H320

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labelling
Signal word (GHS-US): Warning
Hazard statements (GHS-US): H320 - Causes eye irritation
Precautionary statements (GHS-US): P264 - Wash hands thoroughly after handling
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
2.3. Other hazards

No Pictogram according to the established criteria
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>(CAS No.) 7447-40-7</td>
<td>99.6 - 99.8</td>
<td>Eye Irrit. 2B, H320</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>(CAS No.) 7647-14-5</td>
<td>0.2 - 0.4</td>
<td>Eye Irrit. 2A, H319</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: If medical advice is needed, have product container or label at hand.
First-aid measures after inhalation: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact: Wash skin thoroughly with mild soap and water. Obtain medical attention if irritation develops or persists.
First-aid measures after eye contact: Immediately rinse with water for a prolonged period (at least 15 minutes) while holding the eyelids wide open. Obtain medical attention if pain and irritation develops or persists.
First-aid measures after ingestion: Do not induce vomiting. Administer water if patient is conscious. Ingesting potash will usually cause purging of the stomach by vomiting. Seek medical attention if a large amount is swallowed. Get medical advice and attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries: Irritation to eyes, skin and respiratory tract.
Symptoms/injuries after inhalation: Overexposure may be irritating to the respiratory system.
Symptoms/injuries after skin contact: May cause skin irritation.
Symptoms/injuries after eye contact: May cause eye irritation.
Symptoms/injuries after ingestion: If a large quantity has been ingested: Abdominal pain; Diarrhea; Nausea; Vomiting; Tingling in hands and feet; Weak pulse; Circulatory disturbances
Chronic symptoms: Prolonged inhalation of dust may cause respiratory irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available
SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Not flammable. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Under conditions of fire this material may produce: Potassium oxides; Hydrogen chloride; Chlorine gas

Explosion hazard: Product is not explosive.

Reactivity: Stable at ambient temperature and under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions: Keep upwind. Under conditions of fire this material may produce: Potassium oxides; Hydrogen chloride; Chlorine gas

Protection during firefighting: Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Other information: Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Do not breathe fumes from fires or vapours from decomposition.

6.1.1. For non-emergency personnel

Protective equipment: Wear suitable protective clothing, gloves and eye/face protection including tight fitting goggles in areas of high dust concentration. Wear NIOSH approved respiratory protective equipment when workplace conditions warrant use of respirator.

Emergency procedures: Collect as any solid. Ventilate area.

6.1.2. For emergency responders

Protective equipment: Wear suitable protective clothing, gloves and eye/face protection including tight fitting goggles in areas of high dust concentration. Wear NIOSH approved respiratory protective equipment when conditions warrant use of respirator.

Emergency procedures: If possible, stop flow of product. Contain and collect as any solid. Ventilate area.

6.2. Environmental precautions

If spill could potentially enter any waterway, including intermittent dry creeks, contact the U.S. COAST GUARD NATIONAL RESPONSE CENTER at 800-424-8802. In case of accident or road spill notify CHEMTREC at 800-424-9300. In other countries call CHEMTREC at (International code) +1-703-527-3887.

6.3. Methods and material for containment and cleaning up

For containment: Contain and collect as any solid. Do not allow into drains or water courses or dispose of where ground or surface waters may be affected.
Methods for cleaning up: Recover the product by vacuuming, shoveling or sweeping. Avoid generation of dust during clean-up of spills. If uncontaminated, recover and reuse as product. If on soil, remove and collect the top 5 cm of soil.

6.4. Reference to other sections
No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Additional hazards when processed: When heated, material emits irritating fumes.
Precautions for safe handling: Handle in accordance with good industrial hygiene and safety procedures. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Hygiene measures: Emergency eye wash fountain and safety shower should be available in the immediate vicinity of any potential exposure.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Store tightly closed in a dry, cool and well-ventilated place. Protect from moisture.
Special rules on packaging: Avoid contact with aluminum or carbon steel to minimize corrosion.

7.3. Specific end use(s)
Industrial Chicklets

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Highly soluble – No ACGIH TWA, Particulate Not Otherwise Specified (PNOS) not appropriate for highly soluble material.

8.2. Exposure controls
Appropriate engineering controls: Ensure adequate ventilation, especially in confined areas.
Personal protective equipment: Gloves. Safety glasses. Protective clothing.
Hand protection: Impermeable protective gloves.
Eye protection: Protective goggles. Tight fitting goggles should be worn in dusty areas to reduce dust exposure to eyes.
Skin and body protection: Emergency eye wash fountain and safety shower should be available in the immediate vicinity of any potential exposure. Wear suitable protective clothing. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice. Wash clothing frequently.
Respiratory protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.
Environmental exposure controls: Ensure adequate ventilation, especially in confined areas.
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : 3 – 25 mm Granules
Colour : White
Odour : No data available
Odour threshold : No data available
pH : ~ 7
Relative evaporation rate (butylacetate=1) : No data available
Melting point : 771 – 773 °C (1420 – 1423 °F)
Freezing point : No data available
Boiling point : 1420 - 1500 °C (2588 - 2732 °F) (sublimes)
Flash point : No data available
Self ignition temperature : Not flammable
Decomposition temperature : No data available
Flammability (solid, gas) : Not flammable
Vapour pressure : No data available
Relative vapour density at 20 °C : No data available
Relative density : No data available
Density : 2 g/cc
Solubility : Water: 347 g/l (at 20 °C)
Log Pow : No data available
Log Kow : No data available
Viscosity : No data available
Explosive properties : None known.
Oxidising properties : None known.
Explosive limits : Not explosive

9.2. Other information

VOC content : < 0.5 %

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable at ambient temperature and under normal conditions of use.

10.2. Chemical stability
Stable at standard temperature and pressure.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.
10.4. **Conditions to avoid**
Protect from moisture.

10.5. **Incompatible materials**
Contact with acids liberates toxic gas (chlorine). Contact with hot nitric acid may produce toxic nitrosyl chloride.

10.6. **Hazardous decomposition products**
Contact with strong acids may produce hydrogen chlorine gas.

### SECTION 11: Toxicological information

11.1. **Information on toxicological effects**

**Acute toxicity**: Not classified

<table>
<thead>
<tr>
<th>Potassium Chloride</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Additional information</strong></td>
<td>Potassium chloride is listed by the FDA as &quot;Generally Recognized as Safe&quot; (GRAS) and may be used as a food additive according to prescribed conditions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potassium chloride (7447-40-7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LD50 oral rat</strong></td>
<td>2600 mg/kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sodium chloride (7647-14-5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LD50 oral rat</strong></td>
<td>3 g/kg</td>
</tr>
<tr>
<td><strong>LD50 dermal rabbit</strong></td>
<td>&gt; 10 g/kg</td>
</tr>
<tr>
<td><strong>LC50 inhalation rat (mg/l)</strong></td>
<td>&gt; 42 g/m³ (Exposure time: 1 h)</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**: Not classified

- pH: ~ 7

**Serious eye damage/irritation**: Causes eye irritation

- pH: ~ 7

**Respiratory or skin sensitisation**: Not classified

**Germ cell mutagenicity**: Not classified

**Carcinogenicity**: Not classified

**Reproductive toxicity**: Not classified

**Specific target organ toxicity (single exposure)**: Not classified

**Specific target organ toxicity (repeated exposure)**: Not classified

**Aspiration hazard**: Not classified

### SECTION 12: Ecological information

12.1. **Toxicity**

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>EPA Ecological Toxicity rating:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity to Fish:</td>
<td>(Lepomis macrochirus) (blue gill) – 96 hour - LC₅₀ = 2010 mg/L (ppm KCl)</td>
</tr>
<tr>
<td>Chronic Toxicity to Fish:</td>
<td>No data available.</td>
</tr>
<tr>
<td>Acute Toxicity to Aquatic Invertebrates:</td>
<td>(Daphnia magna) - 48 hours - EC₅₀ = 337 – 825 mg/L; (Physa heterostropha) - 96 hrs - LC₅₀ = 940 mg/L.</td>
</tr>
</tbody>
</table>
### Potassium Chloride

**Safety Data Sheet**

<table>
<thead>
<tr>
<th>Chronic Toxicity to Aquatic Invertebrates:</th>
<th>No data available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity to Aquatic Plants:</td>
<td>(Algae): ((Nitzschia linearis)) diatom - 5 days - 120 hour (T_{Lm} = 1.337 \text{ ppm KCl}); ((Scenedesmus subspicatus)) 72 hour - (EC_{50} = 2.500 \text{ mg/L}). ((Chlorella vulgaris)) - 3-4 months - NOEC = 600 mg KCl/L; LÖEL = 700 mg KCl/L.</td>
</tr>
<tr>
<td>Toxicity to Soil Dwelling Organisms:</td>
<td>No data available.</td>
</tr>
<tr>
<td>Toxicity to Terrestrial Plants:</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

**Environmental Fate:**

- **Stability in Water:** Ions can persist, dissociates in water
- **Stability in Soil:** Binds to clay particles.
- **Transport and Distribution:** Distribution: \(1.51 \times 10^{-8}\) % to air; 45.2 % to water; 54.7% to soil; 0.0755% to sediment.

**Toxicity:** Not toxic to aquatic organisms defined by USEPA.

**Degradation Products:**

- **Biodegradation:** Chloride and potassium ions. No data available for biodegradability or bioaccumulation.
- **Photodegradation:** No data available

---

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

- **Sewage disposal recommendations:** This material may be hazardous to the aquatic environment. Keep out of sewers and waterways.
- **Waste disposal recommendations:** Place in an appropriate container and dispose of the contaminated material at a licensed site.
- **Additional information:** Dispose of waste material in accordance with all local, regional, national, and international regulations.

**SECTION 14: Transport information**

In accordance with DOT / TDG / ADR / RID / ADNR / IMDG / ICAO / IATA

**14.1. UN number**

No dangerous good in sense of transport regulations.

**14.2. UN proper shipping name**

Not applicable

**14.2 Additional information**

- **Other information:** No supplementary information available.

**Overland transport**

No additional information available

**Transport by sea**

No additional information available

**Air transport**

No additional information available
## SECTION 15: Regulatory information

### 15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Potassium Chloride</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA Section 311/312 Hazard Classes</td>
<td>Immediate (acute) health hazard</td>
</tr>
</tbody>
</table>

**Potassium chloride (7447-40-7)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**Sodium chloride (7647-14-5)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. US State regulations

The following states have an OSH program approved by OSHA. If you are located in any of these states you may be under state jurisdiction rather than federal jurisdiction and your state may have more stringent requirements than OSHA. You should consult your state regulations to ensure compliance.

<table>
<thead>
<tr>
<th>Alaska</th>
<th>Arizona</th>
<th>California</th>
<th>Connecticut</th>
<th>Hawaii</th>
<th>Illinois</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indiana</td>
<td>Kentucky</td>
<td>Maryland</td>
<td>Michigan</td>
<td>New York</td>
</tr>
<tr>
<td></td>
<td>Nevada</td>
<td>New Mexico</td>
<td>*New Jersey</td>
<td></td>
<td>Tennessee</td>
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<td></td>
<td></td>
<td></td>
<td>*New York</td>
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</tbody>
</table>

*The state plans in these states apply only to public sector employers. In these states private sector employers are subject to USOL – OSHA jurisdiction. All other state plans apply to both public and private sector employers.

**Sodium chloride (7647-14-5)**

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

### 15.3. Canadian regulations

<table>
<thead>
<tr>
<th>Potassium Chloride</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WHMIS Classification</td>
<td>Uncontrolled product according to WHMIS classification criteria</td>
</tr>
</tbody>
</table>

**Potassium chloride (7447-40-7)**

Listed on the Canadian DSL (Domestic Sustances List) inventory.

WHMIS Classification | Uncontrolled product according to WHMIS classification criteria

**Sodium chloride (7647-14-5)**

Listed on the Canadian DSL (Domestic Sustances List) inventory.

WHMIS Classification | Uncontrolled product according to WHMIS classification criteria
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

**SECTION 16: Other information**

<table>
<thead>
<tr>
<th>NFPA health hazard</th>
<th>1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA fire hazard</td>
<td>0 - Materials that will not burn.</td>
</tr>
<tr>
<td>NFPA reactivity</td>
<td>0 - Normally stable, even under fire exposure conditions, and are not reactive with water.</td>
</tr>
</tbody>
</table>

Full text of H-phrases:

| Eye Irrit. 2A        | Serious eye damage/eye irritation Category 2A                                                   |
| Eye Irrit. 2B        | Serious eye damage/eye irritation Category 2B                                                   |
| H319                | Causes serious eye irritation                                                                  |
| H320                | Cause eye irritation                                                                           |

Previous PotashCorp MSDS Number : MSDS 25-Potassium Chloride

**SDS US (GHS HazCom 2012)**

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