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

1.1. Product identifier
Product form : Mixture
Product name : Phosphogypsum
Product code : GYP
Other means of identification : Gypsum

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/preparation : Agricultural chemical

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
Not classified.

2.2. Label elements
GHS-US labelling
Labeling : GHS/Hazcom 2012 Labeling: Not hazardous according to the established criteria.
Supplemental labeling : As with all chemicals, avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

2.3. Other hazards
Hazardous to the aquatic environment.
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>Calcium sulfate dihydrate</td>
<td>(CAS No.) 10101-41-4</td>
<td>77 - 87</td>
<td>Not classified</td>
</tr>
<tr>
<td>Water</td>
<td>(CAS No.) 7732-18-5</td>
<td>8 - 13</td>
<td>Not classified</td>
</tr>
<tr>
<td>Calcium, iron, aluminum and magnesium sulfates, phosphates and silicates</td>
<td>Mixture</td>
<td>3 - 6</td>
<td>Not classified</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>(CAS No.) 7664-38-2</td>
<td>0.5 - 0.8</td>
<td>Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335</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 (with a directed stream of water) while forcibly holding the eyelids wide open to ensure a complete irrigation of all eyes and lid tissue. Washing eyes within seconds is essential to achieve maximum effectiveness. Obtain medical attention if irritation develops or persists.
First-aid measures after ingestion : Do not induce vomiting. Seek medical attention if a large amount is swallowed, give several glasses of water. 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

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

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 toxic and irritating fumes: Sulfur oxides and phosphorus oxides.

Explosion hazard: Product is not explosive.

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

5.3. Advice for firefighters

Firefighting instructions: Phosphogypsum is a non-flammable inorganic salt. It will not support combustion.

Protection during firefighting: Keep personnel removed from and upwind of fire. 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: Handle in accordance with good industrial hygiene and safety practice.

6.1.1. For non-emergency personnel

Protective equipment: Wear suitable protective clothing, gloves and eye/face protection including chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent) when eye and face contact is possible due to splashing or spraying of material.

Emergency procedures: Collect as any solid. Ventilate area. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Wear suitable protective clothing, gloves and eye/face protection.


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: If contaminated with other materials, contain and collect as any solid in suitable containers. Do not allow into drains or water courses or dispose of where ground or surface waters may be affected. Prevent large quantities from contacting vegetation.
Methods for cleaning up: Recover the product by vacuuming, shoveling or sweeping and place in appropriate container to be disposed at an appropriate disposal facility according to current applicable laws and regulations and product characteristics at the time of disposal. Provide adequate ventilation. Avoid generation of dust during clean-up of spills. If uncontaminated, recover and reuse product. Practice good housekeeping – spillage can be slippery on smooth surface either wet or dry.

6.4. Reference to other sections
No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Handle in accordance with good industrial hygiene and safety procedures. Wear recommended personal protective equipment. Avoid creating or spreading dust.

Hygiene measures: Emergency eye wash fountains 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 and store away from fire hazards.

Incompatible materials: None identified.

7.3. Specific end use(s)
Agricultural chemical.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Calcium sulfate dihydrate (10101-41-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA ACGIH</td>
</tr>
<tr>
<td>ACGIH TWA</td>
</tr>
<tr>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Ensure adequate ventilation, especially in confined areas.


Hand protection: Impermeable protective gloves.

Eye protection: Protective goggles.

Skin and body protection: Emergency eye wash fountains and safety showers 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.
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Colour</td>
<td>Gray</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>7 at 2 g/L at 20 °C</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>1450 °C (2642 °F)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Self ignition temperature</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>2.31 g/cm³</td>
</tr>
<tr>
<td>Bulk density</td>
<td>56 lbs/ ft³ (loose) 66 lbs/ ft³ (tamped)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Negligible</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not oxidizing</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

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
No additional information available.

10.6. Hazardous decomposition products
Under conditions of fire this material may produce: Sulfur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified

<table>
<thead>
<tr>
<th>Phosphogypsum</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

Serious eye damage/irritation: Not classified
Respiratory or skin sensitisation: 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: Practically non-toxic to aquatic organisms based on the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) acute toxicity ratings.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity to Fish:</td>
<td><em>(Pimephales promelas)</em> 96-hr: LC&lt;sub&gt;50&lt;/sub&gt; &gt; 1,970 mg/L; <em>(Lepomis macrochirus)</em> 96-hr: LC&lt;sub&gt;50&lt;/sub&gt; &gt; 2,980 mg/L; <em>(Gambusia affinis)</em> 96-hr: LC&lt;sub&gt;50&lt;/sub&gt; &gt; 56,000 mg/L</td>
</tr>
<tr>
<td>Chronic Toxicity to Fish:</td>
<td><em>(Salmo irideus)</em> 28-day: NOEC &gt; 3,263 mg/L</td>
</tr>
<tr>
<td>Acute Toxicity to Aquatic Invertebrates:</td>
<td><em>(Daphnia magna)</em> 48-hr: EC&lt;sub&gt;50&lt;/sub&gt; = 1,970 mg/L</td>
</tr>
<tr>
<td>Chronic Toxicity to Aquatic Invertebrates:</td>
<td></td>
</tr>
<tr>
<td>Toxicity to Aquatic Plants:</td>
<td></td>
</tr>
<tr>
<td>Toxicity to Bacteria:</td>
<td></td>
</tr>
<tr>
<td>Toxicity to Soil Dwelling Organisms:</td>
<td></td>
</tr>
<tr>
<td>Toxicity to Terrestrial Plants:</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations: This material is 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

14.3 Additional information

Other information: Product contains Radium 226 and that the concentration is annotated on the Bill of Lading.

SECTION 15: Regulatory information

15.1. US Federal regulations

Calcium sulfate dihydrate (10101-41-4)

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.
**Calcium sulfate dihydrate (10101-41-4)**

<table>
<thead>
<tr>
<th>Country</th>
<th>State</th>
<th>Country</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>New Hampshire</td>
<td>United States</td>
<td>New Hampshire</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**15.3. Canadian regulations**

Calcium sulfate dihydrate (10101-41-4)

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

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**

**NFPA health hazard**: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

**NFPA fire hazard**: 0 - Materials that will not burn.

**NFPA reactivity**: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

**Previous PotashCorp MSDS Number**: MSDS 9 - Phosphogypsum

**Logo Change**: No other information changes; kept same date

**SDS US (GHS HazCom 2012)**

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