

# Safety Data Sheet (SDS)

Reviewed on 11/25/2025

Trade Name: PR10000 Phosphate Remover Concentrate

## Section 1: Identification

**Product/Chemical Name:** PR10000 Phosphate Remover Concentrate**Chemical Formula:** Proprietary rare earth chloride**CAS Number:** N/A.**Other Designations:** None**General Use:** Precipitation and removal of phosphates from water.

- **Manufacturer:**

Pure Planet Science & Technologies Inc. dba Orenda Technologies  
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## Section 2: Hazard(s) Identification

**Global Harmonized System (GHS) Classification:**

Health	Environmental	Physical
Acute Oral Toxicity – Category 5	Acute Toxicity – None*	None
Eye Irritation – Category 2B		
Skin Irritation – Category 3		
Target Organ Toxicity (Repeated) – Category 2		

**Label Pictogram:****Signal Word:** Warning

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Hazard Statements	Precautionary Statements
H303: May be harmful if swallowed	P264: Wash hands thoroughly after handling
H315: Causes skin irritation	P280: Wear protective gloves/protective clothing/eye protection/face protection
H319: Causes serious eye irritation	P302+P352: IF ON SKIN: Wash with plenty of soap and water
H373: May cause damage to organs (liver and spleen) through prolonged repeated exposure	P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes, remove contact lenses, if present and easy to do. Continue rinsing
	P312: Call a POISON CENTER/doctor/physician if you feel unwell P332+P313: If skin irritation occurs: Get medical advice/attention P337+P313: If eye irritation persists: Get medical advice/attention P362 + P364: Take off contaminated clothing and wash before reuse P402/P404: Store in a dry place. Store in a closed container. P501: Place contaminated materials in disposal containers and dispose of in a manner consistent with applicable regulations

**Risk Phrases:** R36/38: Irritating to eyes and skin  
R48: Danger of serious damage to health by prolonged exposure

**Safety Phrases:** S24/S25: Avoid contact with skin and eyes  
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

## Section 3: Composition/Information on Ingredients

- CAS Number: N/A

PR10000 Phosphate Remover Concentrate is an aqueous solution comprised of rare earth elements as the primary mechanism for removing phosphates from water. The exact formulation is proprietary and a trade secret.

## Section 4: First-Aid Measures

- Description of First Aid Measures:

**Inhalation:** In the improbable event of product inhalation, remove the affected individual to fresh air and provide fresh air or artificial respiration as required. Obtain medical attention.

**Eye Contact:** Flush thoroughly with water for five minutes and obtain medical attention if irritation of eye membranes persists.

**Skin Contact:** Wash contacted areas with soap and water, apply emollient skin cream to minimize dryness and seek medical attention if irritation persists.

**Ingestion:** Drink several glasses of water. Obtain medical attention.

**After first aid, get appropriate in-plant, paramedic, or community medical support if exposure symptoms persist.**



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**Note to Physicians:** Under normal use and human exposure conditions, the product is considered nontoxic and nonhazardous.

**Special Precautions/Procedures:** None.

**Ingestion:** With substantial and/or long term ingestion of the as-received product, possible delayed blood clotting, sensitivity to heat, skin itching, increased odor and taste awareness, and liver damage.

**Carcinogenicity:** IARC, NTP, and OSHA do not list PR-10,000 Phosphate Remover or its components as carcinogens.

**Medical Conditions Aggravated by Long-Term Exposure:** None known.

**Chronic Effects:** There are no known chronic effects except as indicated above under Acute Effects.

### Section 5: Fire-Fighting Measures

**Flash Point:** Not applicable **Flammable Limits:** Not applicable

**Suitable extinguishing media:** If this material is involved in a fire, use water fog, foam, dry chemical or carbon dioxide to extinguish flames.

**Unusual fire and explosion data/Specific hazards:** None known.

**Special protective actions for firefighters:** None known. This material will not burn.

### Section 6: Accidental Release Measures

**Personal precautions:** Prevent contact with skin or eyes.

**Environmental precautions:**

Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater.

**Containing environmental effects:**

Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Measures when handling spilled substance:**

Clean up spill as soon as possible, observing precautions in **Section 8**. Use appropriate techniques such as applying non-combustible absorbent materials or pumping.

### Section 7: Handling and Storage

**Handling Precautions:** Wear appropriate eye and glove protection to minimize personal exposure.

**Storage Requirements:** Do not store with oxidizing materials. Keep containers sealed.

- Regulatory Requirements:** None established.

### Section 8: Exposure Controls/Personal Protection

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**Engineering Controls:**

**Ventilation:** In the event of product misting, provide general or local exhaust ventilation systems to minimize airborne concentrations. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Administrative Controls:**

**Respiratory Protection:** If product misting occurs, follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

**Protective Clothing/Equipment:** Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove material from your shoes and clean personal protective equipment after use.

- Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. **KEEP AWAY FROM CHILDREN.**

## Section 9: Physical and Chemical Properties

Attention: the data below are typical values and do not constitute a specification.

Appearance			
Physical state:	Liquid	Specific gravity (Water = 1):	1.4-1.6 (solution) @ 20°C
Color:	White to Amber	Partition Coefficient:	Not applicable
Odor/Odor threshold:	Mild	n-octanol/water	
pH:	3.0-4.0	Water solubility:	High
Melting/freezing point:	4.4°C (-40°F)	Autoignition Temperature:	Not applicable
Boiling point/range:	Not available	Decomposition Temperature:	Not applicable
Flash point:	Not applicable	Viscosity:	Not applicable
Evaporation rate:	Not available	Other Properties	
Flammability:	Non-flammable	Oxidizing properties:	Not applicable
Upper/lower flammability limits	Non-flammable	Molecular Weight	Proprietary
Vapor pressure:	Not applicable	Bulk density:	Not available
Vapor density (Air = 1):	Not applicable		

## Section 10: Stability and Reactivity

**Reactivity:** This material is considered stable under normal storage and handling conditions

**Chemical stability:** This material is considered stable under normal storage and

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handling conditions

**Possibility of hazardous reactions:** See below

**Incompatibility:** Incompatible with oxidizing reagents, can generate hazardous chlorine gas

**Hazardous decomposition products:** See above

### Section 11: Toxicological Information

**Likely routes of exposure:** Eye and skin contact

**Signs and symptoms of overexposure:** Eye and skin irritation

#### Acute Effects

<b>Acute oral toxicity:</b>	Slightly toxic by this route (Category 5) – see below
<b>Acute inhalation toxicity:</b>	Not likely route of exposure - No information found
<b>Acute dermal toxicity:</b>	No information found
<b>Skin irritation:</b>	Can cause skin irritation
<b>Eye irritation:</b>	Can cause eye irritation
<b>Skin sensitization:</b>	No information found

#### Other Health Effects

**Specific target organ toxicity (repeated exposure):** Chronic oral exposure to rare earth chlorides may cause toxic effects to the liver and spleen based on experimental animal data

**Mutagenicity:** Rare earth chlorides were negative in the Ames bacterial mutagenic test using bacterial strains TA135, TA1537, TA98, TA100, TA102, and WP2uvrA.

**Carcinogenicity:** Not assessed by IARC, NTP or USEPA for carcinogenicity

**Medical conditions aggravated by exposure:** Preexisting diseases of the liver or spleen

**Acute toxicity values:** Oral LD50 (Rat) = 2800 mg/kg

**Additional Information:** None - Proprietary information.

### Section 12: Ecological Information (non-mandatory)

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### **Ecotoxicity:**

#### Toxicity to fish

Fathead Minnow  
96-hour LC50: 191 mg/L  
NOEC(96 hr): 125 mg/L  
7-day IC25: 2.1 mg/L  
NOEC(7 day): 1.3 mg/L  
LOEC(7 day): 2.5 mg/L

Rainbow Trout  
96-hour LC50: 10.4 mg/L  
NOEC(96 hr): 5.0 mg/L

#### Toxicity to daphnia

Ceriodaphnia dubia  
48-hour LC50: 16.4 mg/L  
NOEC(48 hr): 7.8 mg/L  
7-day IC25: 2.0 mg/L  
NOEC(7 day): 1.6 mg/L  
LOEC(7 day): 3.1 mg/L

### **Persistence and biodegradability:**

This inert mineral product is not expected to be readily biodegradable.

## Section 13: Disposal Considerations (non-mandatory)

**Disposal:** This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

**Disposal Regulatory Requirements:** None.

**Container Cleaning and Disposal:** Thoroughly clean empty containers with water and recycle. Do not use empty containers for food storage.

## Section 14: Transport Information (non-mandatory)

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## DOT Transportation Data (49 CFR 172.101):

**Shipping Name:** Chemicals, NOS (Non-regulated).

**Shipping Symbols:** None.

**Hazard Class:** Nonhazardous.

**ID No.:** None.

**Packing Group:** N/A

**Label:** None.

**Special Provisions (172.102):**

None.

### Packaging Authorizations

- a) Exceptions: N/A
- b) Non-bulk Packaging: N/A
- c) Bulk Packaging: N/A

### Quantity Limitations

- a) Passenger, Aircraft, or Railcar: None.
- b) Cargo Aircraft Only: None.

### Vessel Stowage Requirements

- a) Vessel Stowage: None.
- b) Other: N/A

## Section 15: Regulatory Information (non-mandatory)

### EPA Regulations:

#### STATE REGULATIONS:

**California:** The components in this material are not subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5).

#### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1 03=EPCRA 313

01-2A=IARC Group 2A 04=CA Proposition 65

01-2B=IARC Group 2B 05=MA RTK

02=NTP Carcinogen 06=NJ RTK

07=PA RTK

No components of this material were found on the regulatory lists above.

### INVENTORY STATUS:

**AICS (Australia):** All components comply with inventory requirements

**DSL (Canada):** All components comply with inventory requirements

**EINECS (European Union):** All components comply with inventory requirements

**ENCS (Japan):** All components comply with inventory requirements

**IECSC (China):** All components comply with inventory requirements

**KECI (Korea):** All components comply with inventory requirements

**PICCS (Philippines):** All components comply with inventory requirements

**TSCA (United States):** All components comply with inventory requirements

### OTHER REGULATORY INFORMATION:

**WHMIS Classification (Canada):**

**D2B – Materials causing other toxic effects (eye irritation and chronic respiratory disease).**

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### Section 16: Other Information

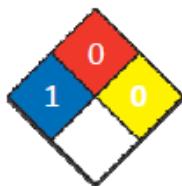
Prepared by: Jarred Morgan  
Preparation date: 02/21/2017

**National Fire Protection Association (NFPA) Ratings:** This information is provided solely for the use of individuals trained in the NFPA system.

Health: 1

Flammability: 0

Reactivity: 0



**Additional Hazard Rating Systems:** None.

**Disclaimer:** The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.