



Safety Data Sheet (SDS)

Reviewed on 05/06/2015

Trade Name: PR10000 Phosphate Remover Concentrate

Section 1: Identification

Product/Chemical Name: PR10000 Phosphate Remover Concentrate**Chemical Formula:** Proprietary rare earth**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

Hazardous Statement:

The precise composition of PR-10,000 is proprietary information. A more complete disclosure will be made to an attending physician in the event of a medical emergency involving this product. When utilized in accordance with Orenda Technologies PR-10,000 is considered to be environmentally safe, nontoxic and nonhazardous.

Precautionary statements:

Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.

Specific treatment (see on this label).

Take off contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

Classification system:**NFPA ratings (scale 0 - 4)**

Health = 1

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 1

Fire = 0

Reactivity = 0

Section 3: Composition/Information on Ingredients



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- 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.

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: None.

Flash Point Method: N/A

Burning Rate: N/A

Autoignition Temperature: N/A

LEL: N/A

UEL: N/A

Flammability Classification: Nonflammable.

Extinguishing Media: N/A

Unusual Fire or Explosion Hazards: None.

Hazardous Combustion Products: Thermal oxidative decomposition of the product may release toxic fumes of hydrogen chloride and metal oxide.

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

- **Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

Section 6: Accidental Release Measures



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Spill /Leak Procedures:

Small & Large Spills

Containment: For all spills, pick up mechanically and place in suitable container for disposal. Do not release into sewers or waterways.

Cleanup: After product recovery and removal, flush spill area with water to a sanitary sewer.

- **Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

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

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



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Physical State: Liquid.**Appearance and Odor:** Amber in color with no discernable odor.**Odor Threshold:** N/A**Vapor Pressure:** Not determined.**Vapor Density (Air=1):** >1.0.**Formula Weight:** N/A**Density:** 11.6 lbs./gallon**Specific Gravity** 1.40**pH:** 2.5 – 3.5**Water Solubility:** Completely soluble.**Other Solubilities:** Not soluble in hydrocarbons.**Boiling Point:** ~ 230°F**Freezing Point:** ~20°F (Typical).**Viscosity:** ~ 20 cPs**Refractive Index:** N/A**Surface Tension:** N/A**% Volatile:** N/A**Evaporation Rate:** N/A

Section 10: Stability and Reactivity

Stability: PR-10,000 Phosphate Remover is stable at room temperature in closed containers under normal storage and handling conditions.**Polymerization:** Hazardous polymerization cannot occur.**Chemical Incompatibilities:** Do not store with oxidizers or acidic agents.**Conditions to Avoid:** Do not use as-received product with stainless steel storage containers or equipment – chloride corrosion will occur.**Hazardous Decomposition Products:** Thermal oxidative decomposition of PR-10,000 Phosphate Remover can produce fumes of hydrogen chloride and lanthanum oxide.

Section 11: Toxicological Information

Eye Effects: As received, irritation of eye membranes.**Skin Effects:** As received, irritating effect.**Ingestion:** As received, possible delayed blood clotting, sensitivity to heat, increased taste sensitivity, and liver damage with substantial ingestion.**Toxicity Data:****Acute Inhalation Effects:**Human, inhalation, TC_{Lo} : Not established.**Acute Oral Effects:**

Slightly toxic by this route; Oral Rat LD50 = 2.8 g/kg.

Chronic Effects: None known.**Carcinogenicity:** None known.**Mutagenicity:** None known.**Teratogenicity:** None known.

Section 12: Ecological Information (non-mandatory)



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- **Ecotoxicity:** This material is not expected to be harmful to fish or aquatic invertebrates. Rare Earth salts are known to remove free phosphate from water.

Environmental Fate

Environmental Transport: Water or soil.

Environmental Degradation: Not established.

Soil Absorption/Mobility: Not established.

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)

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)



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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).

Section 16: Other Information

Prepared by: Jarred Morgan

Preparation date: 05/06/2015

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.