
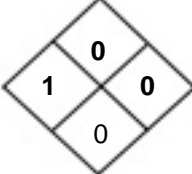


# Material Safety Data Sheet

Revision Issued: 10/20/08	Supersedes: 02/12/07	First Issued: 12/31/1989
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## Section I – Product and Company Identification

<b>Product Name:</b> <b>Defluorinated Phosphate (18.0% P)</b>	PotashCorp MSDS No.: 8 ERG No.: N/A
 <p>1101 Skokie Blvd., Northbrook, IL 60062 Phone (800) 241-6908 / (847) 849-4200</p> <p>Suite 500, 122 – 1<sup>st</sup> Avenue South Saskatoon, Saskatchewan Canada S7K7G3 Phone (800) 667-0403 from Canada (800) 667-3930 from USA</p> <p><b>Emergencies (800) 424-9300 (CHEMTREC)</b> Web Site <a href="http://www.potashcorp.com">www.potashcorp.com</a> Health Emergencies, Contact Your Local Poison Center</p>	<p>Flammability</p> <p>Health  Reactivity</p> <p>Specific Hazard</p> <p><b>NFPA Code</b></p>

<b>Common Name:</b> Tricalcium Phosphate or Defluorinated Phosphate (DFP)	<b>Formula:</b> Mixture of Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> primarily & NaCaPO <sub>4</sub>	<b>Synonym:</b> DFP and ULTRADFP	<b>Uses:</b> Animal and Poultry feeds
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## Section II – Composition / Information On Ingredients

Chemical Name	CAS No.	Exposure Limits								% by Weight
		OSHA PEL		TLV – TWA		STEL		CEIL		
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
Tricalcium phosphate, as Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	1306-06-5	15/5*		10/3**						57
Rhenanite, as NaCaPO <sub>4</sub>										35
Calcium silicate, as Ca <sub>2</sub> SiO <sub>4</sub>										6
Other metallic impurities										2

\*For particulates not otherwise regulated, standard is 15 mg/m<sup>3</sup> total dust and 5 mg/m<sup>3</sup> for respirable fraction.

\*\*For particulates (insoluble) not otherwise specified, adopted value is 10mg/m<sup>3</sup> for inhalable fraction and 3 mg/m<sup>3</sup> for respirable fractions.

## Section III – Hazard Identification

<b>Potential Acute Health Effects:</b>	
<b>Eyes and Skin:</b>	May cause slight irritation to the eyes, skin, nose or throat. Direct contact with the eyes can cause corneal burns.
<b>Inhalation:</b>	May cause slight discomfort.
<b>Ingestion:</b>	Swallowing a large amount is very unlikely, but could cause gastrointestinal irritation, nausea, vomiting, and diarrhea.
<b>Potential Chronic Health Effects:</b>	No other potential health effects known.
<b>CARCINOGENICITY LISTS</b>	<b>IARC Monograph:</b> No <b>NTP:</b> No <b>OSHA:</b> No

## Section IV – First Aid Measures

<b>Eyes:</b>	Immediately flush eyes (holding eyelids apart) with plenty of water for at least 15 minutes. Get medical attention if irritation continues, develops or persists.
<b>Skin:</b>	Wash skin thoroughly with soap and water.
<b>Ingestion:</b>	Do not induce vomiting. If conscious and large amount is ingested give several glasses of water to dilute stomach contents. Call a physician if a large amount of Defluorinated Phosphate is swallowed.
<b>Inhalation:</b>	Remove to fresh air. Keep warm. Get medical attention if discomfort continues.

Section V – Fire Fighting Measures			
Flash Point:	Non-flammable	Autoignition Temperature:	Not Applicable
Lower Explosive Limit:	Not Applicable	Upper Explosive Limit:	Not Applicable
Unusual Fire and Explosion Hazards:	Not Applicable		
Extinguishing Media:	Tricalcium phosphate is a non-flammable inorganic salt. Use any extinguishing media required for surrounding fire, such as water spray, dry chemical, carbon dioxide, or foam.		
Special Firefighting Procedures and Equipment:	Keep personnel removed from and upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).		

Section VI – Accidental Release Measures	
Small Spill:	Defluorinated phosphate is used as a feed ingredient. If uncontaminated, recover and reuse product. If contaminated with other materials, collect in suitable containers.
Large Spill:	Defluorinated phosphate is used as a feed ingredient. Prevent large quantities from contacting waterways. If uncontaminated, recover and reuse product. If contaminated with other materials, collect in suitable containers.
Release Notes:	If spill could potentially enter any waterway, including intermittent dry creeks, contact the local authorities. If in the U.S., contact the US COAST GUARD NATIONAL RESPONSE CENTER toll free number 800-424-8802. In case of accident or road spill notify: CHEMTREC IN USA at 800-424-9300; CANUTEC in Canada at 613-996-6666 CHEMTREC in other countries at (International code)+1-703-527-3887.
Comments:	See Section XIII for disposal information and Section XV for regulatory requirements. Large and small spills may have a broad definition depending on the user's handling system. Therefore, the spill category must be defined at the point of release by technically qualified personnel.

Section VII – Handling and Storage	
Ventilation:	Local exhaust or other ventilation that will reduce dust concentrations to less than the recommended Permissible Exposure Limit
Handling:	Use appropriate personal protective equipment as specified in Section VIII. Avoid contact with skin and eyes. Avoid inhalation and ingestion.
Storage:	Store in ventilated area, away from fire hazards.

Section VIII – Exposure Controls/ Personal Protection	
Engineering Controls:	Local exhaust or other ventilation that will reduce dust concentrations to less than the recommended Permissible Exposure Limit
<b>Personal Protection:</b>	
Eye Protection:	Tight fitting goggles should be worn in dusty areas to reduce dust exposure to the eyes.
Protective Clothing:	If irritation occurs, long sleeves and impervious gloves should be worn.
Respiratory Protection:	A NIOSH-approved dust respirator should be used when exposure exceeds the OSHA nuisance dust standard of 15 mg/m <sup>3</sup> .
Other Protective Clothing or Equipment:	Optional

Section IX – Physical and Chemical Properties			
Appearance/Color/Odor:	Odorless tan granular solid	Boiling Point:	Not Applicable
Melting Point/Range:	1670°C (3038°F)	Boiling Point Range:	Not Applicable
Solubility in Water:	Negligible	Vapor Pressure (mmHg):	Not Applicable
Specific Gravity:	2.2	Molecular Weight:	310 for tricalcium phosphate and 158 for rhenanite
Vapor Density:	Not Applicable	% Volatiles:	Not Applicable
Bulk Density:	85 to 100 lbs/ft <sup>3</sup> (loose)	Evaporation Rate:	Not Applicable
pH:	7 (10% slurry)	Freezing Point:	Not Applicable
Viscosity:	Not Applicable	Density:	Not Applicable

Section X – Stability and Reactivity	
Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	None known
Materials to Avoid (Incompatibles):	None known
Hazardous Decomposition Products:	None known

Section XI – Toxicological Information		
Significant Routes of Exposure:	Eyes, skin, respiratory system, digestive tract.	
Toxicity to Animals:	Acute Oral Toxicity:	No data available
	Acute Inhalation Toxicity:	No data available
	Acute Toxicity: Other Routes:	No data available
	Acute Dermal Toxicity:	No data available
	Repeated Dose Toxicity:	No data available
	Eye & Skin Irritation/Corrosion:	No data available
Special Remarks on Toxicity to Animals:	No data available	
Other Effects on Humans:	No data available	
Special Remarks on Chronic Effects on Humans:	No data available	
Special Remarks on Other Effects on Humans:	No data available	

Section XII – Ecological Information		
Ecotoxicity:	EPA Ecological Toxicity rating :	No data available
	Acute Toxicity to Fish:	No data available
	Chronic Toxicity to Fish:	No data available
	Acute Toxicity to Aquatic Invertebrates:	No data available
	Toxicity to Aquatic Plants:	No data available
	Toxicity to Bacteria: (activated sludge):	No data available
	Toxicity to Soil Dwelling Organisms:	No data available
	Toxicity to Terrestrial Plants:	No data available
Environmental Fate:	Stability in Water:	Defluorinated Phosphate has negligible solubility in water.
	Stability in Soil:	No data available
	Transport and Distribution:	No data available
Toxicity:	No data available	
Degradation Products:	Biodegradation:	No data available
	Photodegradation:	No data available

Section XIII – Disposal Considerations	
Product Disposal:	Dispose of waste at an appropriate waste disposal facility according to applicable laws and regulations. Collect in appropriate containers. Dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations and product characteristics at time of disposal.
General Comments:	None

Section XIV – Transportation Information		
	USDOT	TDG - Canada
Proper Shipping Name:	Not regulated	Not regulated
Hazard Class:		
Identification Number:		
Packing Group (Technical Name):		
Labeling / Placarding:		
Authorized Packaging:		
Notes:		

Section XV – Regulatory Information										
<b>UNITED STATES: SARA Hazard Category:</b>	This product has been reviewed according to the EPA Hazard Categories promulgated under Section 311 and 312 of the Superfund Amendment and reauthorization Act of 1986 (SARA title III) and is considered, under applicable definitions, to meet the following categories:									
	<b>Fire:</b>	No	<b>Pressure Generating:</b>	No	<b>Reactivity:</b>	No	<b>Acute:</b>	Yes	<b>Chronic:</b>	No
	<b>40 CFR Part 355 - Extremely Hazardous Substances:</b>						None			
	<b>40 CFR Part 370 - Hazardous Chemical Reporting:</b>						Not Applicable			
	<b>All intentional ingredients listed on the TSCA inventory.</b>									
<b>SARA Title III Information:</b>	This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund amendments and Reauthorization Act of 1986 and 40 CFR Part 372:									
	<b>Chemical</b>	<b>CAS NO.</b>	<b>Percent by Weight</b>	<b>CERCLA RQ (lbs)</b>	<b>SARA (1986) Reporting</b>					
					311	312	313			
	Tricalcium phosphate	1306-06-5	57		No*	No*	No			
	Note: * Exempt from reporting in accordance with 40CFR370.2(5)									
<b>CERCLA/Superfund, 40 CFR Parts 117, 302:</b>	If this product contains components subject to substances designated as CERCLA reportable Quantity (RQ) Substances, it will be designated in the above table with the RQ value in pounds. If there is a release of RQ Substance to the environment, notification to the National response Center, Washington D.C. (1-800-424-8802) is required.									
<b>CANADA:</b>	<b>WHMIS Hazard Symbol and classification:</b>				This product is not WHMIS controlled.					
	<b>Ingredient Disclosure List</b>				This product does not contain ingredient(s) on this list.					
	<b>Environmental Protection:</b>				All intentional ingredients are listed on the DSL (Domestic Substance List).					
<b>EINECS#:</b>	(Tricalcium phosphate) 215-145-7									
<b>California: Prop 65:</b>	This is not a chemical known to cause cancer, nor is it listed.									

Section XVI – Other Information				
<b>NFPA Hazard Ratings:</b>	<b>Health:</b> 1	<b>Fire:</b> 0	<b>Reactivity:</b> 0	<b>Special Hazards:</b>
	<b>0 = Insignificant</b>	<b>1 = Slight</b>	<b>2 = Moderate</b>	<b>3 = High 4 = Extreme</b>
<b>COMMENTS:</b>	This product is TSE/BSE (Transmissible Spongiform Encephalopathy/Bovine Spongiform Encephalopathy) free. There are no animal constituents used in the manufacture of Defluorinated Phosphate for PCS Sales (USA) Inc. Our product is created through a chemical process.			
<b>Section(s) changed since last revision:</b>	Revisions to Sections I, II, and IX			
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