

NFPA Classification	DOT / TDG Pictograms	WHMIS Classification	HMIS	PROTECTIVE CLOTHING
			Health 1 Flammability 0 Reactivity 0 PPE A	

Section I. Chemical Product and Company Identification

PRODUCT NAME/ TRADE NAME		Kapusking Pit Run Phosphate Ore	
SYNONYM	Phosphate rock Kap Rock	MSDS NUMBER:	14235
CHEMICAL NAME	Fluoroapatite	REVISION NUMBER	4.3
CHEMICAL FAMILY	Mineral ore from the Kapuskasing area of Ontario, containing oxides of phosphorous, iron, aluminum, calcium, sodium, magnesium, silicon and small amounts of fluorides.	MSDS prepared by the Environment, Health and Safety Department on:	September 16, 2007
CHEMICAL FORMULA	Ca ₁₀ F ₂ (PO ₄) ₆	24 HR EMERGENCY TELEPHONE NUMBER: Transportation Emergency: 1 (800) 792-8311 Medical Emergency: 1 (888) 670-8123 Redwater site only: 6060 Kapuskasing site only: 222	
MATERIAL USES	Agricultural use: Raw material in the production of fertilizer.		
MANUFACTURER	Agrium North American Wholesale 13131 Lake Fraser Drive, S.E. Calgary, Alberta, Canada T2J 7E8	SUPPLIER	Agrium North American Wholesale 13131 Lake Fraser Drive, S.E. Calgary, Alberta, Canada, T2J 7E8 Agrium U.S. Inc. Suite 1700, 4582 South Ulster St. Denver, Colorado, U.S.A., 80237

Section II. Composition / Information on Ingredients

NAME	CAS #	Exposure Limits (ACGIH)						% by Weight
		TLV-TWA mg/m ³	TLV-TWA ppm	STEL mg/m ³	STEL ppm	CEIL mg/m ³	CEIL ppm	
Fluoroapatite	1306-05-4	10						> 30 as P ₂ O ₅
Silica, crystalline (quartz)	14808-60-7	0.05						<15
ACGIH TLV notations: ---- No assigned TLV (C) - Ceiling - the concentration not to be exceeded at any time (I) - measured as the Inhalable fraction of the aerosol (R) - measured as the Respirable fraction of the aerosol (T) - measured as the Thoracic fraction of the aerosol								
TOXICOLOGICAL DATA ON INGREDIENTS	Phosphate rock LD50: > 3g/kg Crystalline silica, quartz: TCLo, Rat, inhalation: 200mg/kg, RTECS, Nov 2003 TCLo, Mouse, inhalation: 40mg/kg RTECS, Nov 2003							

Section III. Hazards Identification.

POTENTIAL ACUTE HEALTH EFFECTS	A dusty material if allowed to dry out due to the fine size of the particles. This product may irritate the eyes, nose, throat and skin upon prolonged or repeated contact due to mechanical action. Non-hazardous on ingestion. The material will pass through the digestive tract unchanged and with no effect.
POTENTIAL CHRONIC HEALTH EFFECTS	<p>Contains minor quantities of crystalline silica in the form of quartz. Prolonged or repeated overexposures may cause irritation and progressive and permanent lung disorders, including silicosis. Quartz is classified as a suspected human carcinogen by the American Conference of Governmental Industrial Hygienists. The International Agency for Research on Cancer has classified crystalline silica in the form of quartz as a Group 1 confirmed human carcinogens.</p> <p>Prolonged or repeated exposure to acid gases or mists from the digestion of phosphate rock may cause skeletal or dental disorder (fluorosis).</p>

Section IV. First Aid Measures

EYE CONTACT	May cause eye irritation due to mechanical action. Rinse eyes with water to remove dust or grit.
MINOR SKIN CONTACT	No known toxic effect according to our database. May cause drying of the skin. Wash with soap and water. If dryness occurs, use a moisturizing lotion.
EXTENSIVE SKIN CONTACT	No additional information.
MINOR INHALATION	Inhalation of dust may produce irritation to the respiratory tract, characterized by sneezing and coughing. Allow the person to rest in a well ventilated area. If irritation persists, seek medical attention.
SEVERE INHALATION	No additional information.
SLIGHT INGESTION	The material is non-toxic on ingestion. The product will pass through the digestive tract unchanged and with no effect. No specific treatment is required.
EXTENSIVE INGESTION	No additional information.

Section V. Fire and Explosion Data

THE PRODUCT IS	Non-flammable.
AUTO-IGNITION TEMPERATURE	Not applicable.
FLASH POINT	Not applicable.
FLAMMABILITY LIMITS	Not applicable.
PRODUCTS OF COMBUSTION	Not applicable.
FIRE HAZARD IN THE PRESENCE OF VARIOUS SUBSTANCES	Not applicable.
EXPLOSION HAZARD IN THE PRESENCE OF VARIOUS SUBSTANCES	This product is non-explosive.
FIRE FIGHTING MEDIA AND INSTRUCTIONS	Non combustible.
SPECIAL REMARKS ON FIRE HAZARDS	No additional information.
SPECIAL REMARKS ON EXPLOSION HAZARDS	No additional information.

Section VI. Accidental Release Measures

SMALL SPILL	Use appropriate tools or equipment to place the spilled solid in a suitable container for use or disposal. Flush or wash the contaminated surface.
LARGE SPILL	No additional information.

Section VII. Handling and Storage

PRECAUTIONS	If user operations generate dust, use ventilation to keep exposure to airborne contaminants below the exposure limit.
STORAGE	A dusty material if allowed to dry out. Moisture content of the material (8-13%) is sufficient to reduce the possibility of excessive dust levels. Protect from wind or airborne dust generation. Material displays complex handling characteristics with bridging, fluid flow, and hard set-up depending upon conditions of storage. Stockpiles of material may be unstable resulting in slumping, cliffing, and sand-like characteristics. Ensure stability of stockpiled materials.

Section VIII. Exposure Controls/Personal Protection

ENGINEERING CONTROLS	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, use adequate local exhaust or general ventilation to keep exposure to airborne contaminants below the exposure limits.
PERSONAL PROTECTION	The selection of personal protective equipment varies, depending upon conditions of use. Wear appropriate respiratory protection for dust when ventilation is inadequate. A filtering facepiece dust mask is recommended for most applications if respiratory protection is needed. Where skin and eye contact may occur as a result of brief periodic exposures, wear long sleeved clothing, coveralls, chemical resistant gloves, and safety glasses with side shields. A respiratory protection program that meets OSHA 29 CFR 1910.134 requirements must be followed whenever workplace exposure conditions warrant a respirator's use.
PERSONAL PROTECTION IN CASE OF LARGE RELEASE	No further information.
EXPOSURE LIMITS	Occupational Exposure Limits are based on the content of crystalline silica in the produced ore. ACGIH TLV-TWAs: Silica, cristalline, as quartz: 0.05 mg/m ³ as respirable dust. Federal, State or Provincial exposure limits may vary by jurisdiction. Consult local authorities for acceptable exposure limits in your area.

Section IX. Physical and Chemical Properties

PHYSICAL STATE AND APPEARANCE	Solid.		
MOLECULAR WEIGHT	Not available	COLOR	May range from white to tan, sandy brown to grey, or grey to black.
pH (10% SOLN/WATER)	Not applicable.	ODOR	Earthy
BOILING POINT	Decomposes. (1100°C or 2012°F)	ODOR THRESHOLD	Not available.
MELTING POINT	Decomposes. (1100°C or 2012°F)	TASTE	Not available.
CRITICAL TEMPERATURE	Not applicable.	VOLATILITY	8-13% (w/w) as water.
SPECIFIC GRAVITY g/cc	Not available	SOLUBILITY	Insoluble in cold water, hot water.
BULK DENSITY kg/m³ ; lbs/ft³	Not available.	DISPERSION PROPERTIES	Is not dispersed in cold water, hot water.
VAPOR PRESSURE	0 mm of Hg (@ 20°C)	WATER/OIL DIST. COEFF.	Not available.
VAPOR DENSITY	Not applicable.		

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Section X. Stability and Reactivity Data

STABILITY	The product is stable.
INSTABILITY TEMPERATURE	Not available.
CONDITIONS OF INSTABILITY	No additional information.
INCOMPATIBILITY WITH VARIOUS SUBSTANCES	The product is stable.
CORROSIVITY	Low hazard for usual industrial or commercial handling.
SPECIAL REMARKS ON REACTIVITY	No additional information.
SPECIAL REMARKS ON CORROSIVITY	Non-corrosive.

Section XI. Toxicological Information

SIGNIFICANT ROUTES OF EXPOSURE	Inhalation.
TOXICITY TO ANIMALS	See Section II.
SPECIAL REMARKS ON TOXICITY TO ANIMALS	Low toxicity for humans or animals under normal conditions of use.
OTHER EFFECTS ON HUMANS	No additional information.
SPECIAL REMARKS ON CHRONIC EFFECTS ON HUMANS	No additional information.
SPECIAL REMARKS ON OTHER EFFECTS ON HUMANS	No additional information.

Section XII. Ecological Information

ECOTOXICITY	Not considered to be toxic to animals.
BOD and COD	Not available.
PRODUCTS OF DEGRADATION	Resistant to degradation in the natural environment.
TOXICITY OF THE PRODUCTS OF DEGRADATION	No additional remarks.
SPECIAL REMARKS ON THE PRODUCTS OF DEGRADATION	No additional information.

Section XIII. Disposal Considerations

WASTE DISPOSAL OR RECYCLING Recover and place material in a suitable container for intended use or disposal. Consult your environmental advisor for information on disposal alternatives.

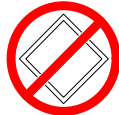
Section XIV. Transport Information

DOT / TDG CLASSIFICATION Not controlled under DoT (U.S.) or TDG (Canada).

PIN and Shipping Name Not applicable.

SPECIAL PROVISIONS FOR TRANSPORT No additional remark.

DOT (U.S.A) (Pictograms)



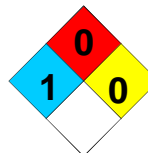
Section XV. Other Regulatory Information and Pictograms

OTHER REGULATIONS CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): This product is on the Domestic Substances List (DSL), and is acceptable for use under the provisions of CEPA.
 OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
 TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.
 This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations. WHMIS CLASS D-2A: Material causing other toxic effects (VERY TOXIC) based on the presence of crystalline silica.

OTHER CLASSIFICATIONS	HCS (U.S.A.)	HCS CLASS: May be toxic for the lungs.
	DSCL (EEC)	Not available.

National Fire Protection Association (U.S.A.) Hazards presented under acute emergency conditions only:

Health



Fire Hazard Reactivity

Specific Hazard

TDG (Pictograms - Canada)



DSCL (Europe) (Pictograms) Not Available
 No Disponible
 Pas Disponible

ADR (Europe) (Pictograms) Not Available
 No Disponible
 Pas Disponible

Section XVI. Other Information**REFERENCES**

- Transportation of Dangerous Goods Act and Clear Language Regulations, current revision.
- Canada Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List".
- Domestic Substances List, Canadian Environmental Protection Act.
- 29 CFR Part 1910
- 33 CFR Parts 151, 153, 154, 156
- 40 CFR Parts 1-799
- 46 CFR Part 153
- 49 CFR Parts 1-199
- American Conference of Governmental Industrial Hygienists, Threshold Limit Values for Chemical Substances, 2007.
- NFPA 704, National Fire Codes Online, National Fire Protection Association, current edition at time of MSDS preparation.
- Corrosion Data Survey, Sixth Edition, 1985, National Association of Corrosion Engineers
- Expert Publishing, LLC (ExPub on-line version): Denver, Colorado, USA. Available at: <http://www.expub.com/index.aspx>. The EXPUB System includes a collection of over seventy National and International Databases from but not limited the ATSDR; California and U.S.EPA; CDC; U.S. Department of Transportation; U.S. Coast Guard; European Chemicals Bureau; National Library of Medicine; National Institute for Occupational Safety and Health; Georgetown University Medical Center and Reproductive Toxicology Center; United Nations Environmental Program; World Health Organization; and U.S. OSHA.
- The Fertilizer Institute Product Testing Program Results, March 2003

OTHER SPECIAL CONSIDERATIONS

HMIS information added in this revision.

FOR FURTHER SAFETY, HEALTH, OR ENVIRONMENTAL INFORMATION ON THIS PRODUCT, CONTACT

AGRIUM
Wholesale Environment, Health and Safety
Telephone (780) 998-6906 or Fax (780) 998-6677

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