MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

LABEL IDENTIFIER: Candle, Chlorate with Match, Ignition

PART NUMBER: P/N 85984

PRODUCT DESCRIPTION: Chlorate candle in metal can with ignition match attached to outside of can. Match is a 6-inch foundry nail coated with a minimum of 0.02 gram of a mixture of cement, fiberglass, and phosphorus (red, amorphous powder). The ignition match is enclosed in an aluminized heat sealable bag which is overpacked in a tube with a cap.

VENDOR INFORMATION: **A Material Safety Data Sheet (MSDS P3725) as furnished by Spectrum Laboratory Products, Inc. for Phosphorus Red on the Match is attached. (7 pages)**

Spectrum Laboratory Products, Inc. - MSDS Revision Date: 8/11/2006

COMPANY IDENTIFICATION: MINE SAFETY APPLIANCES
1100 Cranberry Woods Drive
Cranberry Township, PA 16066
FEDERAL GOVERNMENT SALES: 724-733-9280 (9:00 a.m. – 6:00 p.m., USA Eastern Time)

EMERGENCY: 1-800-255-3924 (CHEM-TEL, INC.)

2. Composition/Information on Ingredients

	%	Synonym
Sodium Chlorate (CAS 7775-09-9)	90-95	Chloric acid, sodium salt
Barium Peroxide (CAS 1304-29-6)	1-5	
Inerts	Balance	

OSHA REGULATORY STATUS: Hazardous by definition of Hazard Communication Standard, 29 CFR 1910.1200.

3. Hazards Identification

EMERGENCY OVERVIEW: Candle is light gray slightly tapered cylinder, 11.5 inches high and 6.25 inches average diameter, weighing about 26 pounds, with no odor. Each candle is contained in a metal can with an attached ignition match. The match is enclosed in an aluminized heat sealable bag which is overpacked in a tube with a cap. MSA supplies this item as four cans packaged in a cardboard box.

Strong oxidizer. Contact with other material may cause fire. May ignite if temperature exceeds 300ºF (149ºC) and causes container to rupture, releasing oxygen and gases which can cause severe irritation. May cause skin irritation.

PHYSICAL HAZARD: Oxidizer

POTENTIAL HEALTH EFFECTS: Irritation. Toxic by ingestion. Chlorate poisoning is characterized by a latent period of a few hours, followed initially with nausea, vomiting, and diarrhea, followed by cyanosis, hemolysis and subsequent renal failure. See Section 11 for additional information.

POTENTIAL ENVIRONMENTAL EFFECTS: Sodium chlorate reported to be “practically nontoxic” in tested species.

4. First Aid Measures

SKIN CONTACT: Immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get prompt medical attention if irritation occurs.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 20 minutes, holding eyes open. Get medical attention.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen.

INGESTION: POISON! Give two glasses of water and permit vomiting if nauseous. Never give anything by mouth to an unconscious person. Call a physician.

5. Fire Fighting Measures

FLASH POINT: Not flammable LEL: N/A

EXTINGUISHING MEDIA: Use extinguishing media appropriate for UEL of surrounding fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: May ignite if temperature exceeds 300ºF (149ºC) and causes container to rupture, releasing oxygen (which will intensify the fire) and chlorine dioxide, chlorine, sodium and barium oxides (which cause severe irritation). Cool exposed container(s) with water. Continue cooling after fire is extinguished. If candles become wet with water, they will not perform adequately even if dried.

Do not allow wetted candle material to dry in contact with flammable materials, such as clothing, wooden floors, etc. Do not use absorbent materials to absorb firewater. This is because friction or heat could ignite flammable or absorbant materials when dry.

PROTECTION OF FIREFIGHTERS: Wear full fire-fighting turn-out gear (full Bunker gear) and a NIOSH approved self-contained breathing apparatus (SCBA) with full facepiece operated in a positive-pressure mode. Avoid needless exposure to gas, fume, and vapor. If practical, remain upwind when approaching a fire outdoors.

6. Accidental Release Measures

PROCEDURES FOR CLEANUP: A broken and fragmented candle should be cleaned up on a dry basis. Wear a NIOSH approved dust respirator and rubber gloves. Avoid dusting conditions. Place pieces and sweepings in a marked disposal container. Concrete or metal floors can then be flushed with water. Do not wet wood floors. After clean up, wash exposed body surfaces with soap and water. Launder clothing before reuse.

7. Handling and Storage

HYGIENIC PRACTICES: Avoid contact with skin. Wear rubber gloves when handling unburned candles. Wash thoroughly after handling. Do not take internally.

STORAGE: Store in tightly closed original container in a clean, cool, dry place. Do not open can until ready for use. Avoid exposure to water to ensure adequate performance. Keep away from heat, sparks, flames, and incompatible materials. See Section 10.

WORK PRACTICES: See MSA's Technical Manual for Oxygen Candle Furnace.

8. Exposure Controls/Personal Protection

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT: See MSA's Technical Manual for Oxygen Candle Furnace.

PERSONAL PROTECTIVE EQUIPMENT: Use rubber gloves for handling unburned candles. When opening the furnace and handling hot candles, use face visor and cotton gloves with thermal gloves over them.

EXPOSURE LIMITS:
OSHA TLV-TWA: Barium Peroxide, OSHA TLV (as Ba) 0.5 mg/m^3
ACGIH TLV-TWA: ACGIH TLV-TWA: Barium and soluble compounds, 0.5 mg/m3 as Ba.

9. Physical and Chemical Properties

SELF-ACCELERATING DECOMPOSITION TEMPERATURE:	302ºF (150ºC) for sodium chlorate
SOLUBILITY IN WATER:	Approximately 45%
FORMULA:	$NaCl0_3$, BaO_2

10. Stability and Reactivity

CONDITIONS OR MATERIALS TO AVOID: Keep from contact with clothing and other combustible materials such as oil, grease, fuel, wood, sawdust, paper, and leather. Keep away from strong acids and reducing agents such as sulfur and sulfur compounds, powdered metals, ammonia and ammonium compounds, manganese dioxide, potassium cyanide, and thiocyanates. Keep away from heat, sparks, and flames.

11. Toxicological Information

This product has not been tested for health hazards. The assumption is made in the OSHA Hazard Communication Standard that an untested mixture will present the same health hazards as do the components which comprise one percent or more.

Sodium chlorate is an eye, skin, and respiratory irritant. Several reports of accidental or suicidal swallowing of sodium chlorate indicate that chlorate poisoning is characterized by a latent period of a few hours, followed initially with nausea, vomiting and diarrhea, followed by cyanosis, hemolysis and subsequent renal failure. Blood effects (hemolytic anemia and methemoglobinemia) as well as kidney and stomach effects were reported. Similar effects on the blood (anemia) have been noted in laboratory animals at high dose levels. Other effects noted in animal tests were: immediate vomiting, death, slight decreases in adrenal weights, decreases in body weight gain, and effects on red blood cells indicative of anemia and decreased fragility in osmotic fragility of red blood cells. In controlled clinical studies with human volunteers administered 500 ml of a 5 ppm solution of sodium chlorate in water for 12 weeks, no adverse effects were found. Skin allergy was not observed in guinea pigs following repeated skin exposure. Both positive and negative mutagenic effects were observed in bacterial cells and flies; several studies in animals and animal cells have been negative. No adverse effects on the mother or fetus were noted in rats given oral doses during pregnancy at levels up to 1000 mg/kg/day.

Barium peroxide may cause skin or eye irritation with redness, swelling, itching, tearing of eyes, and pain. Inhalation may irritate the respiratory tract with coughing, shortness of breath, laryngitis, sore throat and runny nose. If sufficient amounts are inhaled and absorbed, symptoms may resemble those in acute indigestion. Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Ingestion may cause gastroeneritis (inflammation of the lining membrane of the stomach and intestines) with abdominal pain, nausea, vomiting and diarrhea. Systemic effects may follow and may include ringing of the ears, dizziness, elevated blood pressure, blurred vision and tremors. This product is not listed in the National Toxicology Program (NTP) Annual Report on Carcinogens, not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, not listed by OSHA.

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE: Persons with preexisting skin conditions may be more susceptible to the effects of this product.

12. Ecological Information

Sodium chlorate was reported to be “practically nontoxic” in tested species. 48 hour LC50 Daphnia: >1,000 mg/l; 96 hour EC50 Freshwater Algae (static) 133 mg/l; 96 hour LC50 Mysid Shrimp (flow-through): >1,000 mg/l; 96 hour LC50 Bluegill (flow-through): >1,000 mg/l; 96 hour LC50 Rainbow Trout (flow-through): >1,000 mg/l; 96 hour LC50 sheepshead minnow (flow-through): >1,000 mg/l; 96 hour LC50 oyster shell deposition (flow-through): >1,000 mg/l.

The single dose oral LD50 of sodium chlorate in mallard ducks was greater than 2510 mg/kg. The five day dietary LC50 to mallard ducks and northern bobwhite quail were both greater than 5620 ppm. A single spraying of the equivalent of 348 pounds per acre of sodium chlorate produced a significant impairment of growth, seed germination and seeling emergence in 10 non-target plant species.

13. Disposal Considerations

Waste Disposal: Do not flush to sewer. Dispose in accordance with local, state, and federal laws and regulations.

14. Transport Information

This product is a U.S. Department of Transportation (DOT) Hazardous Material.

Proper Shipping Name:	Oxygen generator, chemical
Hazard Class or Division:	5.1
Identification Number:	UN3356
Packaging Group:	II

This device has been classified and approved for shipment by U.S. DOT in accordance with Classification Document DOT EX-9709047 and Approval CA-9709009. Shipper should carefully review these documents which are available from the Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, U.S. Department of Transportation, 400 7th Street, SW, Washington, DC 20590-0001. Tel: 1-800-467-4922. Web site: www.rspa.dot.gov. Copies of these documents are also available through the MSA QuikLit (SM) service at 1-800-MSA-9010.

15. Regulatory Information

SARA 313 Information: This mixture contains 1-5% weight percent of barium peroxide, a barium compound, CAS Number: 1304-29-6, a toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.

Pennsylvania: This product contains sodium chlorate and barium peroxide which are subject to the Pennsylvania Worker and Community Right-To-Know Act.

California: The sodium chlorate component sometimes contains trace amounts of chromium (up to 25 parts per million). The following warning is provided to comply with California law. Warning! This product contains a chemical known to the State of California to cause cancer.

16. Other Information

WARNING: This is a dangerous chemical product. By following the directions and warnings provided with this product, the hazards associated with the use of this product can be greatly reduced but never entirely eliminated. Mine Safety Appliances Company makes no warranties, expressed or implied, with respect to this product and EXPRESSLY DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. Users assume all risks in handling, using, or storing this product.

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment
	Health Hazard 2 Fire Hazard 2 Reactivity 0	 See Section 15.

Section 1. Chemical Product and Company Identification

Common Name/ Trade Name	**Phosphorus, red**
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248
Commercial Name(s)	Not available.
Synonym	Phosphorus, amorphous, red
Chemical Name	Phosphorus (red)
Chemical Family	Not available.
Chemical Formula	P
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248

Catalog Number(s).	YY476, P1541, P1110
CAS#	7723-14-0
RTECS	TH3495000
TSCA	TSCA 8(b) inventory: Phosphorus, red
CI#	Not available.

IN CASE OF EMERGENCY
CHEMTREC (24hr) 800-424-9300

CALL (310) 516-8000

Section 2.Composition and Information on Ingredients

		Exposure Limits			
Name	**CAS #**	**TWA (mg/m^3)**	**STEL (mg/m^3)**	**CEIL (mg/m^3)**	**% by Weight**
1) Phosphorus, red	7723-14-0	0.1			100

Toxicological Data on Ingredients

Phosphorus, red
LD50: Not available.
LC50: Not available.

Section 3. Hazards Identification

Potential Acute Health Effects

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Severe over-exposure can result in death.

Potential Chronic Health Effects

CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
The substance is toxic to kidneys, liver.
Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
Ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	Flammable.
Auto-Ignition Temperature	260°C (500°F)
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Flammable in presence of open flames and sparks, of heat, of oxidizing materials. Non-flammable in presence of shocks.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Explosive in presence of oxidizing materials.
Fire Fighting Media and Instructions	Flammable solid. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Special Remarks on Fire Hazards	COMBUSTIBLE SOLID. Under fire situations, the more hazardous white phosphorus may be formed. When heated to decomposition it emits irritating fumes. May ignite with friction or contact with oxidizers. Combustion by-products include oxides of phosphorus, phosphine, phosphoric aicd if water is present. Catches fire when heated in air to about 260 C and burns with formation of the pentoxide. Burns with a pale green light when heated in an atmosphere of chlorine. Phosphorus boiled with alkaline hydroxides yields mixed phosphines which may ignite spontaneously in air Red phosphorus and boron triiodide or lead dioxide, or zirconium or sodium peroxide react with incandescence. Phosphorus ignites the vapor of nitric acid and burns with an intense white light.

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Special Remarks on Explosion Hazards	Explosions may result on contact or friction. Finely divided phosphorus with bromates, chlorates, and iodates of barium, calcium , magnesium, potassium, sodium, or zinc will explode with heat, percussion, or sometimes light friction. Dangerous explosion hazard by chemical reaction with Antimony pentafluoride, Barium bromate, Beryllium, Calcium bromate, Magnesium bromate, Potassium bromate, Sodium bromate, Zinc bromate, Bromine, Bromine trifluoride, BrN3, Cesium, CsHC2, Cs3N, Chlorite, (Cl2 + heptane), ClO, Chlorine trifluoride, Chlorate, CrO3, Cr(OCl)2, copper, NCl, Iodine monobromide, Iodine monochloride, Iodine pentafluoride, Iron, Lanthanum, Li2C2, Li6CS, magnesium perchlorate, manganese, Neodymium, nickel, nitrates (silver nitrate), NBr, Nitrogen dioxide, Nitrogen bromide, Nitrogen chloride, NOF, FNO2, oxygen, performic acid, Platinum, K3N, K2O2, RbHC2, Se2Cl2, SeOF2, SeF4, Na2C2, Na2O2, Thorium, peroxyformic acid, halogen azides, hexalithium disilicide, vanadium oxytrichloride, sodium peroxide

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill	Flammable solid. Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, alkalis.
Storage	Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8. 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, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	TWA: 0.02 (ppm) from ACGIH (TLV) [United States] TWA: 0.1 (mg/m^3) from OSHA (PEL) [United States] TWA: 0.1 (mg/m^3) from NIOSH Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (Powdered solid.)	**Odor**	Garlic-like; Acrid
Molecular Weight	30.974 g/mole	**Taste**	Not available.
pH (1% soln/water)	Not applicable.	**Color**	Red. (Dark.)
Boiling Point	Not available.		
Melting Point	Sublimation temperature: 416°C (780.8°F)		
Critical Temperature	720.85°C (1329.5°F)		
Specific Gravity	2.36 (Water = 1)		
Vapor Pressure	Not applicable.		

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Vapor Density	Not available.
Volatility	Not available.
Odor Threshold	Not available.
Water/Oil Dist. Coeff.	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	Not available.
Solubility	Very slightly soluble in cold water. Insoluble in hot water, diethyl ether. Insoluble in ammonia, carbon disulfide. Soluble in absolute alcohol.

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Heat, ignition sources, incompatible materials, dust generation
Incompatibility with various substances	Reactive with oxidizing agents, alkalis.
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Reacts with halogens, halides, selenium oxychloride, iodine, oxygen, chlorine, sulfur, oxidizing materials (i.e. potassium permanganate, potassium chlorate, peroxides, etc.); finely divided phosphorus with bromates, chlorates, and iodates of barium, calcium , magnesium, potassium, sodium, or zinc. Reacts with strong alkali to form highly toxic phosphine gas. Phsophorus reacts vigorously below 250 deg C with any of the following materials: cesium, lithium, potassium, rubidium, sodium, sulfur.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Inhalation. Ingestion.
Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Causes damage to the following organs: kidneys, liver.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	Lowest Published Lethal Dose: LDL [Man] - route: unreported; Dose: 4412 ug/kg
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. Eyes: Causes eye irritation. Inhalation: Causes respiratory tract irritation. Ingestion: Red Phosphorus is nonvolatile, insoluble, and unabsorable and is considered nontoxic when ingested. However, it may contain traces of toxic yellow phosphorus (up to .6%) and large ingestions may result in adverse systemic effects (central nervous system effects, cardiovascular system effects, and hypoglycemia). May cause irritation of the digestive tract, with vomitng, diarrhea, stomach pains. May cause kidney and liver damage. In general, depending on the intensity and duration of exposure, the effects may vary from mild irritation to severe

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destruction of tissue.
Chronic Potential Health Effects:
Ingestion: Repeated or prolonged ingestion may cause liver or kidney damage.
Skin: Prolonged or repeated skin contact may cause dermatitis.
Inhalation: Prolonged or repeated inhalation to phosphorus fumes may cause bronchitis, anemia, cachexia, and mandibular necrosis ("phossy" or "Lucifer's" jaw)

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are as toxic as the original product.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information

DOT Classification	CLASS 4.1: Flammable solid.
Identification	: Phosphorous, amorphous UNNA: 1338 PG: III
Special Provisions for Transport	Not available.
DOT (Pictograms)	

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

Connecticut hazardous material survey.: Phosphorus, red
Illinois toxic substances disclosure to employee act: Phosphorus, red
Illinois chemical safety act: Phosphorus, red
New York release reporting list: Phosphorus, red
Rhode Island RTK hazardous substances: Phosphorus, red
Pennsylvania RTK: Phosphorus, red
Minnesota: Phosphorus, red
Massachusetts RTK: Phosphorus, red
Massachusetts spill list: Phosphorus, red
New Jersey: Phosphorus, red
New Jersey spill list: Phosphorus, red
Louisiana RTK reporting list: Phosphorus, red
Louisiana spill reporting: Phosphorus, red
California Director
s List of Hazardous Substances: Phosphorus, red
TSCA 8(b) inventory: Phosphorus, red
TSCA 8(d) H and S data reporting: Phosphorus, red: effective 4/12/93; sunset: 6/30/98
SARA 302/304/311/312 extremely hazardous substances: Phosphorus, red
CERCLA: Hazardous substances.: Phosphorus, red: 1 lbs. (0.4536 kg)

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California Proposition 65 Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 231-768-7).
Canada: Listed on Canadian Domestic Substance List (DSL).
China: Listed on National Inventory.
Korea: Listed on National Inventory (KECI).
Philippines: Listed on National Inventory (PICCS).
Australia: Listed on AICS.

Other Classifications

WHMIS (Canada)

CLASS B-4: Flammable solid.
CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).
CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC)

R11- Highly flammable.
R16- Explosive when mixed with oxidizing substances.

S7- Keep container tightly closed.
S23- Do not breathe gas/fumes/vapour/spray
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36- Wear suitable protective clothing.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	2
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)

WHMIS (Canada) (Pictograms)

DSCL (Europe) (Pictograms)

TDG (Canada) (Pictograms)

ADR (Europe) (Pictograms)

Protective Equipment

Gloves.

Lab coat.

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Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Splash goggles.

Section 16. Other Information

MSDS Code	P3725
References	Not available.
Other Special Considerations	Not available.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.

Printed 9/13/2006.

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.