



Hummel Croton Inc.  
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South Plainfield, NJ 07080

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MSDS



**In case of Emergency Call Chemtrec®**  
(U.S.) (800)-424-9300  
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## Phosphorous, Red

### Section I. Chemical Product and Company Identification

**Supplier:**

Hummel Croton Inc.  
10 Harmich Road  
South Plainfield, NJ 07080  
(908)-754-1800

**Chemical Name:** Phosphorous, Red  
**Synonym:** Red Amorphous Phosphorous  
**CAS Number:** 7723-14-0  
**Chemical Formula:** P

HMIS Rating

Health	1
Flammability	2
Reactivity	1
Personal Protection	E

### Section II. Composition and Information on Ingredients

Material	CAS#	%	OSHA	ACGIH
Phosphorous, Red	7723-14-0	100%	Not Established	Not Established

Since no Exposure limits have been established for Red Phosphorous by OSHA & ACGIH, we recommend that our product should be treated as a nuisance dust 15 mg/m<sup>3</sup>.

### Section III Hazards Identification:

**Acute Health Effects:** Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling, and itching are characteristics of skin inflammation. Follow safe industrial hygiene practices and always wear protective equipment when handling this compound.

**Chronic Health Effects:** This product has no known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.

**Acute Health Effects:** This product is not listed by NTP, IARC or regulated as a Carcinogen by OSHA.

### Section IV. First Aid Measures

**First Aid For Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**First Aid For Skin:** In case of contact, flush skin with water. Wash clothing before reuse. Call a physician if irritation occurs.

**First Aid For Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**First Aid For Ingestion:** If swallowed, call a physician immediately.

### Section V. Fire and Explosion Data

**Flammability:** Non-Flammable

**Flash Points:** Not Applicable

**Auto-Ignition:** 260°C

**Flammable Limits:** Not Applicable

**Extinguishing Media:** Water as a fine mist or fog. DO NOT USE jets of high-pressure water. Cover with wet sand.

**Fire Fighting Procedure:** Wear self-contained breathing apparatus.

**Fire/Explosion Hazards:** Avoid excessive dusting, open flames, open lights, or welding in area of dry product. Ignites easily by friction or static electrical spark. May give rise to dust explosion. Red Phosphorous is sensitive to static discharge  $7.8 \times 10^{-4} \text{J}$  & to mechanical impact sensitivity of  $7.0 \times 10^4 \text{J/m}^2$ .

## Section VI. Accidental Release Measures

**Spill Or Leak Procedures:** Utilize recommended protective clothing and equipment. Clean spills in a manner that does not disperse dust into the air. Spill area can be washed with water. Collect wash water for approved disposal. Keep from entering water or ground water

## Section VII. Handling and Storage

**Storage Temperatures:** Store at ambient temperature

**Shelf Life:** Unlimited in tightly closed container.

**Special Sensitivity:** None

**Handling/Storage Precautions:** Avoid breathing dust. Avoid getting in eyes or on skin. Wash thoroughly after handling. Avoid breathing dust. Avoid getting in eyes or on skin. Wash thoroughly after handling. Use non-sparking tools. Ground equipment to avoid static discharge. Avoid dust-forming conditions and dust build-up. Store in a dry place away from direct sunlight, heat and incompatible materials (see Section VIII). Reseal containers immediately after use. Store away from food and beverages.

## Section VIII. Exposure Controls/Personal Protection

**Eye Protection:** Safety glasses or goggles.

**Skin Protection:** PVC gloves with impervious boots, apron or coveralls. Employees should wash their hands and face before eating, drinking or using tobacco products.

**Respirator:** Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA approved dust respirator must be worn.

**Ventilation:** Use local ventilation if dusting is a problem, to maintain air levels below the recommended exposure limit.

**Additional Protective Measures:** Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of hazardous chemicals.

## Section IX. Physical and Chemical Properties

**Physical Form:** Solid, Red, Amorphous Powder

**Color:** Red

**Odor:** Slight

**Molecular Weight:** 30.79

**Boiling Point:** Sublimes above 417°C

**Melting/Freezing Point:** Sublimes above 417°C

**Solubility In Water:** Insoluble

**Specific Gravity:** 2.34

**Vapor Density:** 4.77\*

\*Red Amorphous Phosphorous will form significant amounts of vapor only when heated strongly. When vapor is formed it is the same vapor from yellow phosphorous, When this vapor is condensed it may form yellow phosphorous, which is more hazardous than Red Amorphous Phosphorous.

## Section X. Stability And Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will Not occur

**Incompatibilities:** Oxidizers, Aluminum & Magnesium powders, Alkalies

**Instable Conditions:** Excessive temperatures (see Incompatibilities).

**Decomposition Temperature:** Auto Ignition Temperature 260°C

**Decomposition products:** Phosphine, (highly toxic and highly flammable) is slowly released in wet alkaline conditions. Burning Red Amorphous Phosphorous gives off dense white smoke of phosphorous pentoxide, an irritant that absorbs water to become phosphoric acid, which is corrosive.

## Section XI. Toxicological Information

**RTECS Number:** TH 3495000

**Routes of Exposure:** Eye contact. Ingestion. Inhalation. Skin contact.

**Toxicity Data:** Oral LD50: is greater than 10,000 mg/kg (rat)

**Chronic Toxic Effects:** This product has no known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.

**Acute Toxic Effects:** Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling, and itching are characteristics of skin inflammation. Follow safe industrial hygiene practices and always wear protective equipment when handling this compound.

## Section XII. Ecological Information

**Ecotoxicity:** Not available at this time.

## Section XIII. Disposal Considerations

**Waste Disposal Method:** Waste disposal should be in accordance with existing federal, state and local environmental regulations.

## Section XIV. Transportation Information

**Proper Shipping Name:** Phosphorous Amorphous

**UN Number:** 1338

**Class:** 4.1

**P.G.:** III

**Label Code:** 4.1

**Reportable Quantity:** RQ 1(0.454)

## Section XV. Regulatory Information

**OSHA Status:** This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

**TSCA Chemical Inventory:** This compound is on the EPA Toxic Substance Control Act (TSCA) inventory List

**California Proposition 65:** To the best of our knowledge, this product contains no levels of listed substances, which the state of California has found to cause cancer, birth defects or other reproductive effects.

**SARA 313 Title III:**

Section 302 Extremely Hazardous Substances: None

Section 311/312 Hazardous Categories: None

Section 313 Toxic Chemicals: None

## Section XVI. Other Information

**Prepared By:** Mark Dugan

**Date:** January 05, 2009

**Reason For Issue:** Updated Format

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