



Material Safety Data Sheet

United Phosphorus, Inc.

NFPA	PPE			

Issued Date 07-Mar-2011

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Revision Number: 2

1. PRODUCT AND COMPANY IDENTIFICATION

UPI

630 Freedom Business Center
Suite 402
King of Prussia, PA 19406

Emergency Telephone Number

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 673-6671 (24hrs)

Company Information

UPI

Contact Information

Customer Service

Phone Number

1-800-438-6071

Available Hrs

8:00 am - 5:00 pm (EST)

Product Name

EPA Reg

Recommended Use

Product Code

BonFire Herbicide

70506-239

Defoliant and dessicant herbicide for the control of weeds and grasses and as a harvest aid.

12U-PQ

2. HAZARDS IDENTIFICATION

Emergency Overview

Fatal if swallowed or inhaled.
Do not breathe spray mist.
Causes irreversible eye damage
Harmful if absorbed through skin

DANGER!

Appearance Dark brown.

Physical State Liquid.

Odor Strong. Pungent.

Potential Health Effects

Eyes

Corrosive to the eyes with corneal or conjunctival ulceration.. Causes irreversible eye damage..

Skin

Prolonged or repeated contact may cause irritation, redness and rash..

Inhalation

Fatal if inhaled - Do not breathe mist/vapors..

Ingestion

Fatal if swallowed - Do not eat, drink, or smoke while handling this product. .

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Paraquat dichloride	1910-42-5	43.2	0.1 mg/m ³ Respirable dust.

4. FIRST AID MEASURES

Eye Contact

Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.
Call a poison control center or doctor for treatment advice.

Skin Contact

Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes.
Call a poison control center or doctor for treatment advice

Inhalation

Call a physician or Poison Control Centre immediately
Move person to fresh air.
If person is not breathing, call 911 or an ambulance, then give artificial respiration.

Ingestion

Immediately call a POISON CENTER or a doctor/physician.
Do not induce vomiting unless told to do so by a poison control center or doctor
Never give anything by mouth to an unconscious person

Notes to Physician

Administer activated charcoal (100 g for adults or 2 g/kg body weight for children) or Fuller's earth (15% solution; 1 liter for adults, 15 mL/kg body weight for children) NOTE: The use of gastric lavage without administration of an absorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat; however, contact with irritated or cut skin or repeated contact with intact skin may result in poisoning.

5. FIRE-FIGHTING MEASURES

Flammable Explosive Properties

Flash Point > 100°C
Autoignition Temperature 625°C

Flammability Limits in Air Not available

Extinguishing Media Carbon dioxide (CO₂), Dry chemical, Foam

Fire/Explosion Hazard In fire conditions, may release irritating and toxic gases due to thermal decomposition or combustion.

Hazardous Combustion Products Carbon dioxide (CO₂), Carbon monoxide, chlorine, Hydrogen chloride, possible trace amounts of phosgene, nitrogen oxide, ammonia, and other toxic and noxious fumes.

NFPA Health 4 Flammability 0 Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Evacuate personnel to safe areas. Avoid contact with skin, eyes and inhalation of vapors.. Remove all sources of ignition. Wear protective gloves/clothing and eye/face protection..

Environmental Precautions Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.. Prevent further leakage or spillage if safe to do so. Keep material out of lakes, streams, ponds and sewer drains. Dike to confine spill and absorb with an absorbent such as clay, sand or soil. .

Methods for Clean-up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labelled containers.

7. HANDLING AND STORAGE

Handling Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing.. Pesticide application and workers must follow the label and Direction for Use in accordance with the EPA Worker's Protection Standard. .

Storage

Keep away from open flames, hot surfaces and sources of ignition. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep cool and protect from sunlight. Store in original container. .

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL
Paraquat dichloride		0.1 mg/m ³ Respirable dust.

Engineering Controls

Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems. .

PESTICIDE APPLICATORS & WORKERS. THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170..

Personal Protective Equipment**Eye/face Protection**

Where there is potential for eye contact have eye flushing equipment available.. Use eye protection to avoid eye contact. . Goggles.

Skin Protection

Socks and footwear. Long sleeved clothing. Chemical resistant gloves.

Respiratory Protection

Select respirator with an organic vapor cartridge with prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with organic vapor cartridge or canister with any N,P,R, or HE filter..

General Hygiene Considerations

Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Dark brown	Odor	Strong Pungent
Physical State	Liquid	pH	approx.5
Boiling Point/Range	Not available	Melting Point/Range	Not available
Specific Gravity	1.15 @ 20 C	Solubility	Miscible
Evaporation Rate	Not available	Vapor Pressure	Not available
Vapor Density	Not available	VOC Content	Not available
Viscosity	Not available	Molecular Weight	No data available
Bulk Density	9.58 lbs/gal	Percent Solids	Not available
Percent Volatiles	Not available		

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions

Conditions to Avoid

Do not expose to extreme temperatures.. Keep away from direct sunlight..

Incompatible Materials

Corrosive to aluminum .

Hazardous Decomposition Products

Carbon dioxide (CO₂). Carbon monoxide. chlorine. Hydrogen chloride.. possible trace amounts of phosgene, nitrogen oxides, ammonia and other toxic and noxious fumes.

Possibility of Hazardous Polymerization

None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

Paraquat dichloride formulation(43.2%) =
Acute oral LD₅₀ = 283 mg/kg (rat)
Acute dermal LD₅₀ = >2,000 mg/kg (rat)
Acute inhalation LC₅₀ = 0.0006 mg/L -4hr (rat)
Skin irritation = slight irritation (rabbit)
Eye irritation = Moderately irritating (rabbit)
Sensitization = Not a contact sensitizer

Chronic Toxicity

Carcinogenicity

Paraquat dichloride (technical) :

Rodent studies showed signs of irritation in 21 day dermal studies. In a 2.5 year chronic study, rats showed evidence of cataracts, body weight reduction and lung effects (alveolar macrophage infiltration) at 75 ppm and above. A 90 day dog diet study showed evidence of lung effects leading to alveolar collapse and death 3 mg/kg/day. Chronic pneumonitis was seen in a 1 year dog study at 0.93 mg/kg/day and above.

Reproductive study =

A three generation reproductive study showed no evidence of fertility or reproductive effects at doses below that causing maternal toxicity. Reproductive NOEL was above 7.5 mg/kg/day, the highest dose level.

Target organs = lungs, kidneys.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Paraquat dichloride=

This product is toxic to wildlife. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Apply this product as specified on the label.

Toxic to non-target plants and crops if off-target movement occurs because it desiccates all green plant tissue. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Refer to local and state laws, regulations, guidelines and spray drift information contained in the "Directions for Use" section of the product labelling for proper application to avoid off-target movement. Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial applications during period of thermal inversion. .

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. . Follow label for proper disposal instructions. .

Contaminated Packaging

Do not reuse container as container is not safe for food, feed or drinking water!. Triple rinse (or equivalent) then offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill; or by other procedures approved by State and local authorities. . Refer to product label.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name	Corrosive liquid, toxic, n.o.s (Paraquat dichloride)
Hazard Class	8
Subsidiary Class	(6.1)
UN-No	UN2922
Packing Group	PG III

ICAO

UN-No	UN2922
Proper Shipping Name	Corrosive liquid, toxic, n.o.s (Paraquat dichloride)
Hazard Class	8
Subsidiary Class	(6.1)
Packing Group	PG III

IATA

UN-No	UN2922
Proper Shipping Name	Corrosive liquid, toxic, n.o.s (Paraquat dichloride)
Hazard Class	8
Subsidiary Class	(6.1)
Packing Group	PG III

14. TRANSPORT INFORMATION

IMDG/IMO

Proper Shipping Name Corrosive liquid, toxic, n.o.s (Paraquat dichloride)
Hazard Class 8
Subsidiary Class (6.1)
UN-No UN2922
Packing Group PG III

15. REGULATORY INFORMATION

International Inventories

Paraquat dichloride

EINECS/ELINCS Listed
ENCS Listed
KECL Listed

USA

Federal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %
Paraquat dichloride	1910-42-5	43.2

SARA 311/312 Hazardous Categorization

Chronic Health Hazard Yes
Acute Health Hazard Yes
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

Clean Water Act

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any HAPs.

CERCLA

Chemical Name	CERCLA EHS RQs
Paraquat dichloride	10 lbs

RCRA

Pesticide Information

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Paraquat dichloride	Listed.	Substance no. 1458 Listed.	Listed.	Listed.	Listed.

International Regulations

Mexico - Grade Not available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not determined

16. OTHER INFORMATION

Revision Date 24-Mar-2011

Revision Summary

Update section 1

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End of MSDS