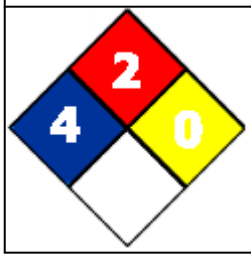
# MATERIAL SAFETY DATA SHEET

United Phosphorus, Inc.

| NFPA | PPE |
|---|---|
|  |     |

**Issued Date** 23-Jul-2007 **Revision date** 17-Mar-2014 **Revision Number:** 1

## 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 | Contact Information | Phone number | Available Hrs |
|---|---|---|---|
| UPI | Customer Service | 1-800-438-6071 | 8:00 am to 5:00 pm EST |
| | R&D Technical Service | 610-878-6100 | 8:00 am - 5:00 pm (EST) |

**Product name** Up-Cyde 2.5 EC CANADA
**EPA Reg #** PMRA # 28795
**Recommended use** Insecticide
**Product code** 12U-127CAN

## 2. Hazards Identification

**EMERGENCY OVERVIEW**
Toxic by inhalation

**DANGER WARNING**
**appearance** yellow. **Physical state** liquid. **Odor** aromatic.

**Potential health effects**

- Skin Contact
- Contains aromatic hydrocarbons- aspiration hazard

**EYES** Contact with eyes may cause irritation.
**skin** MAY CAUSE SKIN IRRITATION.
**Inhalation** Immediate medical attention is required. Toxic by inhalation. Avoid breathing vapors or mists. Poison - may be fatal if inhaled.
**Ingestion** Ingestion may cause irritation to mucous membranes.

## 3. Composition/information on Ingredients

**Ingredients Name**

| Component | CAS-No | Weight % | OSHA PEL |
|---|---|---|---|
| cypermethrin cis/trans +/- 40/60<br>52315-07-8 ( 30.6 ) | 52315-07-8 | 30.6 | N/A |
| Mineral oil<br>64742-55-8 ( <30 ) | 64742-55-8 | <30 | N/A |
| Aromatic hydrocarbons<br>( <40 ) | - | <40 | N/A |

## 4. First aid measures

**Eye contact**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes
Keep eye wide open while rinsing
If symptoms persist, call a physician

**Skin contact**

Immediate medical attention is not required
Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes
If skin irritation persists, call a physician

**Inhalation**

Move to fresh air in case of accidental inhalation of vapors or decomposition products
If symptoms persist, call a physician
Immediate medical attention is required
Call a physician or poison control center immediately
Toxic by inhalation

**Ingestion**

Never give anything by mouth to an unconscious person
Do not induce vomiting without medical advice
Clean mouth with water and drink afterwards plenty of water afterwards
Consult a physician

**Notes to physician**

Treat symptomatically

## 5. Fire-fighting measures

**Flammable Explosive Properties**

**flash point**
>
50
°C
/
>
122
°F

**Method** Pensky Martin Closed Cup
**Autoignition temperature** Not Available

**Flammability Limits in Air** Not Established

**Extnguishing Media** Foam, Carbon dioxide (CO2) Dry chemical.

**Fire/Explosion Hazard** Combustible material Heated material can form flammable and explosive vapors with air.

**Hazardous combustion products** Carbon monoxide, Carbon dioxide (CO2), Hydrogen chloride, Chlorine, Hydrogen cyanide.

**NFPA** **HEALTH** 4 **flammability** 2 **Instability** 0

## 6. Accidental release measures

**Personal Precautions** Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**Methods for Clean-Up** Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

## 7. Handling and Storage

**Handling** Wear personal protective equipment. Use only in area provided with appropriate exhaust ventilation. Do not breathe vapours or spray mist. Use product only in closed system.

**Storage** Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Protect from light. Keep in properly labelled containers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure guidelines**

**Engineering controls** Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

| | |
|---|---|
| **Eye/Face Protection** | Tightly fitting safety goggles. Face-shield. |
| **Skin protection** | Long sleeved clothing. Boots. Apron. Impervious butyl rubber gloves. |
| **Respiratory protection** | In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. |

**General hygiene considerations**
When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing.

## 9. Physical and Chemical Properties

| | | | |
|---|---|---|---|
| **appearance** | yellow | **Odor** | aromatic |
| **Physical state** | liquid | **pH** | 4.71 |
| **Boiling Point/Range** | Not Available | **Melting Point/Range** | 5.71 °C / 42 °F |
| **Specific gravity** | 0.971 | **solubility** | Emulsifies |
| **evaporation rate** | Not Available | **vapor pressure** | Not Available |
| **vapor density** | Not Available | **VOC Content** | Not Available |
| **viscosity** | Not Available | **molecular weight** | 8.095 lb/gal |
| **Bulk density** | No Data Available | **Percent Solids** | Not Available |
| **Percent Volatiles** | Not Available | | |

## 10. Stability and Reactivity

| | |
|---|---|
| **stability** | Stable under recommended storage conditions |
| **Conditions to avoid** | Heat, flames and sparks |
| **incompatible materials** | No materials to be especially mentioned |
| **Hazardous decomposition products** | Carbon monoxide Carbon dioxide (CO2) Hydrogen cyanide Hydrogen chloride Chlorine |
| **Possibility of Hazardous Polymerization** | None under normal processing |

## 11. Toxicological Information

**Acute toxicity**

**Product information**

**Up-Cyde 2.5 EC**
**Acute oral LD50: 355 mg/kg**
**Acute dermal LD50: > 2,000 mg/kg (rabbit)**
**Acute inhalation LC50: >2.02 mg/L (4 hr rat)**
**Eye and skin irritation: Moderately irritating**
**Dermal sensitization: Not a sensitizer**

**Signs of toxicity in laboratory animals included hypertonicity, ataxia, lethargy, convulsions, gasping, salivation, dyspnea and alopecia.**

**Chronic toxicity**

**Carcinogenicity**

Cypermethrin: In animal studies cypermethrin did not cause reproductive toxicity, teratogenicity, neurotoxicity or carcinogenicity in male and female rats and male mice. Cypermethrin caused an increase in benign lung tumors in female mice at 1600 ppm in the diet. The EPA concluded on a weight of evidence approach that cypermethrin represents a low oncogenic potential to female mice at this dose level (approximately 228 mg/kg/day). Liver enlargement is often noted in laboratory animals that have ingested large doses of cypermethrin in their life span. An overall absence of genotoxicity has been demonstrated in tests of mutagenicity, DNA damage and chromosome aberrations.

## 12. Ecological Information

**ecotoxicity**

Cypermethrin:
Is rapidly degraded in soil with a half life of 2-4 weeks. It is readily hydrolyzed under basic conditions; hydrolysis half-life period can be 20-29 days. Cypermethrin has a high affinity for organic matter and a Log Pow of 5.0; yet, because of the ease with which the material undergoes degradation, it has very low potential for bioconcentration (BCF= 17), and it is not mobile in soil.

Cypermethrin is considered extremely toxic to fish and aquatic arthropods, and has LC50 values whcih range from 0.004 ug/L to 3.6 ug/L. The aquatic arthropods tended to be some of the more sensitive species. Care should be taken to avoid contamination of the aquatic environment. Cypermethrin is slightly toxic to birds and oral LD50 values are greater than 10,248 mg/kg.

## 13. Disposal Considerations

| | |
|---|---|
| **Waste Disposal Method** | Dispose of in accordance with local regulations. |

**Contaminated packaging** Empty containers should be taken for local recycling, recovery or waste disposal.

## 14. Transport Information

**DOT**

| | |
|---|---|
| **Proper shipping name** | Flammable liquid, n.o.s (aromatic hydrocarbon) |
| **Hazard class** | 3 |
| **UN-No** | UN1993 |
| **Packing group** | PG III |
| **Marine Pollutant** | This product contains a chemical which is listed as a severe marine pollutant according to DOT. |

**ICAO**

| | |
|---|---|
| **UN-No** | UN1993 |
| **Proper shipping name** | Flammable liquid, n.o.s (aromatic hydrocarbon) |
| **Hazard class** | 3 |
| **Packing group** | III |
| **Description** | Marine Pollutant (Cypermethrin) |

**IATA**

| | |
|---|---|
| **UN-No** | UN1993 |
| **Proper shipping name** | Flammable liquid, n.o.s (aromatic hydrocarbon) |
| **Hazard class** | 3 |
| **Packing group** | PG III |
| **ERG Code** | 3L |
| **Description** | Marine Pollutant (Cypermethrin) |

**IMDG/IMO**

| | |
|---|---|
| **Proper shipping name** | Flammable liquid, n.o.s (aromatic hydrocarbon) |
| **Hazard class** | 3 |
| **UN-No** | UN1993 |
| **Packing group** | PG III |
| **EmS No.** | F-E,S-E |
| **Special Provisions** | 223, 274, 330, 944, 955 |
| **Marine Pollutant** | This product contains a chemical which is listed as a severe marine pollutant according to IMDG/IMO Specified Class 1 Substances PRTR |

**TDG**

| | |
|---|---|
| **Proper shipping name** | Flammable liquid, n.o.s (aromatic hydrocarbon) |
| **Hazard class** | 3 |
| **UN-No** | UN1993 |
| **Packing group** | PG III |

## 15. Regulatory Information

**International Inventories**

| Chemical name | TSCA | DSL | NDSL | EINECS/ ELINCS | ENCS | China | KECL | AICS |
|---|---|---|---|---|---|---|---|---|
| cypermethrin cis/trans +/- 40/60 | | | | X | | X | Present | X |
| Mineral oil | Present | X | | X | Present | X | Present | X |
| Aromatic hydrocarbons | Present | X | | X | Present | X | Present | X |

**USA**

**Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazardous Categorization**

| | |
|---|---|
| **Chronic health hazard** | yes |
| **Acute health hazard** | yes |
| **Fire hazard** | yes |
| **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**
**SARA Product RQ** 0

**RCRA**
**Pesticide Information**

| Component | FIFRA - Restricted Use | FIFRA - Pesticide Product Other Ingredients | FIFRA - Listing of Pesticide Chemicals | California Pesticides - Restricted Materials |
|---|---|---|---|---|
| cypermethrin cis/trans +/- 40/60 52315-07-8 ( 30.6 ) | | | X | |
| Aromatic hydrocarbons ( <40 ) | | | X | |

**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 |
|---|---|---|---|---|---|
| cypermethrin cis/trans +/- 40/60 | X | | | X | |
| Mineral oil | X | | | X | |

**International regulations**
**Mexico - Grade** Moderate risk, Grade 2

**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**
B2 Flammable liquid

| Chemical name | NPRI |
|---|---|
| Aromatic hydrocarbons | X |

**Legend**
NPRI - National Pollutant Release Inventory

**The preparation is classified as dangerous in accordance with Directive 1999/45/EC**

## 16. Other Information

**Revision date** 17-Mar-2014

**Revision Summary**
Update section 14

**Miscellaneous**
TDG regulations:
UN1993
Flammable liquids, n.o.s. (aromatic hydrocarbon)
3
PG III
Marine Pollutant (cypermethrin)

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**End of MSDS**