



Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 04-May-2015

Revision date 28-Mar-2017

Revision Number: 2

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Description: PERM-UP 3.2 EC INSECTICIDE

Other means of identification

Item#: 12U-119

UN-No UN1993

Registration number(s) 70506-9

Recommended use of the chemical and restrictions on use

Recommended use Insecticide.

Uses advised against Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet

Supplier Address

United Phosphorus Inc.
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406

Emergency telephone number

Company Phone Number 1-800-438-6071

Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887

Medical: Rocky Mountain Poison Control Center
(866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|-------------------------|------------|
| Acute toxicity - Oral | Category 4 |
| Acute toxicity - Dermal | Category 4 |
| Skin sensitization | Category 1 |
| FLAMMABLE LIQUIDS | Category 3 |

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard Statements

HARMFUL IF SWALLOWED

Harmful in contact with skin

May cause an allergic skin reaction

Flammable liquid and vapor

**Appearance** amber**Physical state** Liquid**Odor** Slight Odor**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not get in eyes, on skin, or on clothing
 Contaminated work clothing should not be allowed out of the workplace
 Do not spray on an open flame or other ignition source
 Keep only in original container
 Ground/bond container and receiving equipment
 Take precautionary measures against static discharge

Call a POISON CENTER or doctor if you feel unwell
 Wash contaminated clothing before reuse
 If skin irritation or rash occurs: Get medical advice/attention
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)**OTHER INFORMATION**

- Causes mild skin irritation
- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life

3. Composition/information on Ingredients

| Chemical name | CAS-No | Weight % | Trade secret |
|-------------------------|------------|----------|--------------|
| Permethrin technical | 52645-53-1 | 36.8 | |
| 1,2,4-trimethyl benzene | 95-63-6 | <4 | |
| C9aromatic hydrocarbons | 64742-95-6 | 26 | |

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

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 removing all contaminated clothes and

shoes. Call a poison control center or doctor for treatment advice.

Inhalation

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.

Ingestion

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Protection of First-aiders

Use personal protective equipment.

Most Important Symptoms and Effects, Both Acute and Delayed**Most Important Symptoms and Effects**

No information available.

Indication of Any Immediate Medical Attention and Special Treatment Needed**Notes to physician**

Reversible skin sensations (paresthesia) may occur and ordinary skin salves have been found useful in reducing discomfort. Contains aromatic hydrocarbons that may produce a severe pneumonitis if aspirated during vomiting. Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is otherwise controlled by removal of exposure followed by symptomatic and supportive care.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO₂).

Use: Dry chemical. Water spray. alcohol-resistant foam.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous combustion products Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, and other flames and ignition sources at locations distant from material handling point.

Explosion data**Protective equipment and precautions for firefighters**

Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures**Personal Precautions**

Evacuate personnel to safe areas. Use personal protective equipment. Remove all sources of ignition. Wash thoroughly after handling. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Environmental Precautions**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.

Methods and material for containment and cleaning up**Methods for Clean-Up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Ground and bond containers when transferring material. Sweep up and shovel

| | |
|---|--------------------------|
| Lower Flammability Limit | No information available |
| vapor pressure | No information available |
| Vapor Density | No information available |
| Specific gravity | 1.039 @20 C |
| Water solubility | No information available |
| Solubility in Other Solvents | No information available |
| Partition coefficient: n-octanol/water | No information available |
| Autoignition temperature | No information available |
| Decomposition temperature | No information available |
| Viscosity, kinematic | No information available |
| Dynamic viscosity | No information available |
| Explosive properties | No information available |
| Oxidizing properties | No information available |

OTHER INFORMATION

| | |
|-------------------------|--------------------------|
| Softening point | No information available |
| molecular weight | No information available |
| VOC Content | No information available |
| density | No information available |
| Bulk density | 8.65 lb/gal |

10. Stability and Reactivity**Reactivity**

no data available

Chemical stability

Stable under normal conditions. Hazardous polymerisation does not occur.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization Hazardous polymerisation does not occur.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides.

11. Toxicological Information**Information on Likely Routes of Exposure**

| | |
|----------------------------|---|
| Product information | Perm-Up 3.2 |
| | Acute oral LD50 1030 mg/kg (rat) |
| | Acute dermal LD50 >2,000 mg.kg (rabbit) |
| | Acute inhalation LC50 >25.7 mg/L/4hr(rat) |
| | Eye irritation Moderately irritating |
| | Skin irritation Moderately irritating |
| | Dermal sensitization Not a sensitizer |

Skin sensitizations are reversible and usually subside within 12 hours. Permethrin contact with skin has rarely produced skin sensitizations such as numbing, burning, and tingling. Large doses of permethrin to laboratory animals have produced symptoms such as diarrhea, salivation, tremors, intermittent convulsions. Overexposure to animals via inhalation has also produced hyperactivity and hypersensitivity.

Permethrin did not cause reproductive toxicity or teratogenicity. Analysis of chronic feeding studies in both mice and rats with permethrin resulted in the conclusion that permethrin's potential for induction of oncogenicity in experimental animals is low and the likelihood of oncogenic effects in human is nonexistent or extremely low. Long term feeding studies in animals resulted in increased liver and kidney weights, induction of the liver microsomal drug metabolizing enzyme system, and histopathological changes in the liver and lungs. An overall absence of genotoxicity has been demonstrated in mutagenicity testing with permethrin.

- Inhalation** May cause respiratory irritation.
- Eye contact** Moderately irritating to the eyes.
- Skin contact** Skin exposure may result in rashes, numbing, burning or tingling sensation which is reversible and usually subsides within 12 hours.
- Ingestion** MAY BE HARMFUL IF SWALLOWED.

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Sensitization** No information available.
- Mutagenic effects** No information available.
- Carcinogenicity** The information below indicates whether any agency has listed any ingredient as a carcinogen.

| Chemical name | ACGIH | IARC | NTP | OSHA |
|------------------------------------|-------|---------|-----|------|
| Permethrin technical 52645-53-1 | - | Group 3 | | - |

- Reproductive effects** Not Available.
- STOT - Single Exposure** No information available.
- STOT - Repeated Exposure** No information available.
- Chronic toxicity** Avoid repeated exposure.
- Target organ effects** kidney, Respiratory System, EYES, skin, Central Nervous System (CNS), blood.
- Aspiration hazard** No information available.

Numerical Measures of Toxicity - Product information

- LD50 Oral** 1030 mg/kg (rat)
- LD50 Dermal** > 2000 mg/kg (rabbit)
- LC50 Inhalation** Inhalation LC50 > 25.7 mg/l (rat) (4-hr)

12. Ecological Information

Marine Pollutant.

ecotoxicity

Permethrin in soil is stable over a wide range of pH values when applied at agricultural use rates. Permethrin has moderate rate of degradation in soil, At termiticidal use rates, permethrin degrades at a slower rate which is governed by soil characteristics such as soil type, microbial population concentration in soil and aerobic conditions of the soil. Due to its high affinity for organic matter, there is little potential for movement in soil or entry into ground water. Permethrin has a low Pow of 6.1 but a low potential to bioconcentrate (BCF=500) due to the ease with which it is metabolized.

Extremely toxic to fish = 0.05 ug/L to 315 ug/L

Extremely toxic to aquatic arthropods LC50 = 0.02 ug/L to 7.6 ug/L

Marine species are often more sensitive than freshwater species. Bacteria, algae, mollusks and amphibians are much more tolerant of permethrin than the fish and arthropods. Care should be taken to avoid contamination of the aquatic environment. Permethrin is slightly toxic to birds and oral L50 values are greater than 3,600 mg/kg. Longer dietary studies showed that concentrations of up to 500 ppm in the diet had no effect on bird reproduction. Permethrin is extremely toxic to fish, aquatic

invertebrates and honey bees.
 rainbow trout 96 hr LC50 = 2.5 ug/L
 Bluegill sunfish 95 hr LC50 = 1.8 ug/L
 Japanese quail LD50 = 23,000 mg/kg
 Mallard duck LD50 = 11,257 mg/kg

Persistence/Degradability

No information available.

Bioaccumulation/ Accumulation

Bioaccumulative potential.

| Chemical name | Log Pow |
|------------------------------------|---------|
| Permethrin technical 52645-53-1 | 6.5 |
| 1,2,4-trimethyl benzene 95-63-6 | 3.63 |

Other Adverse Effects

No information available

13. Disposal Considerations

Waste Treatment Methods

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.

Contaminated packaging Refer to product label.

14. Transport Information

DOT When shipped domestically IN NON-BULK packages by highway this material is classed as a combustible liquid and as such is not subject to the DOT regulations per 49 CFR 173.150(f) (2) and therefore can be designated as Not Regulated

UN-No UN1993
Proper shipping name Flammable liquid, n.o.s (hydrocarbon solvent, 1,2,4-trimethylbenzene)
Hazard class 3
Packing group PG III
Marine Pollutant Marine Pollutant.

ICAO

UN-No UN1993
Proper shipping name Flammable liquid, n.o.s (hydrocarbon solvent, 1,2,4-trimethylbenzene)
Hazard class 3
Packing group PG III
Description Marine Pollutant (Permethrin)

IATA

UN-No UN1993
Proper shipping name Flammable liquid, n.o.s (hydrocarbon solvent, 1,2,4-trimethylbenzene)
Hazard class 3
Packing group PG III
Description Marine Pollutant (Permethrin)

IMDG/IMO

| | |
|-----------------------------|---|
| UN-No | UN1993 |
| Proper shipping name | Flammable liquid, n.o.s (hydrocarbon solvent, 1,2,4-trimethylbenzene) |
| Hazard class | 3 |
| Packing group | PG III |
| Marine Pollutant | Yes (Permethrin) |

| |
|-----------------------------------|
| 15. Regulatory Information |
|-----------------------------------|

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word CAUTION

Ventilation Control 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.

Restricted Use Pesticide. Keep out of Reach of Children. Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. This product is highly toxic to bees. Toxic to fish and aquatic invertebrates.

International Inventories

| | |
|---------------------------|-----------------|
| USINV | Does not comply |
| DSL/NDSL | Does not comply |
| EINECS/ ELINCS | Does not comply |
| ENCS | Does not comply |
| China | Does not comply |
| KECL | Does not comply |
| PICCS | Does not comply |
| AICS | Does not comply |
| TSCA | Does not comply |

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372:

SARA 311/312 Hazardous**Categorization**

| | |
|--|-----|
| Acute health hazard | yes |
| Chronic health hazard | yes |
| Fire hazard | yes |
| Sudden release of pressure hazard | No |
| Reactive Hazard | yes |

CERCLA

SARA Product RQ 0

RCRA

Pesticide Information

State Regulations

State Right-to-Know

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-9

16. Other Information

NFPA

HEALTH 1

flammability 2

Instability 0

Physical hazard -

Preparation Date 04-May-2015

Revision date 28-Mar-2017

Revision Summary

Update section 2 Update section 3 Update section 14

Disclaimer

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End of MSDS