



Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 23-Apr-2015

Revision date 23-Apr-2015

Revision Number: 1

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

Product identifier

Product Description: Collide(TM) Herbicide

Other means of identification

Item#: 12U-295
UN-No UN3082
Synonyms Not Available
Registration number(s) 70506-295

Recommended use of the chemical and restrictions on use

Recommended use Herbicide.
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

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)

| | |
|-----------------------------------|----------------|
| Skin Corrosion/Irritation | Not classified |
| Serious eye damage/eye irritation | Category 2 |

Label elements

EMERGENCY OVERVIEW

hazard statements

Causes serious eye irritation



appearance amber

Physical state liquid

Odor Solvent-like

Hazards Not Otherwise Classified (HNOC)**OTHER INFORMATION****3. Composition/information on Ingredients**

| Chemical name | CAS-No | Weight % | Trade secret |
|---------------|------------|----------|--------------|
| Oxyfluorfen | 42874-03-3 | 23 | |

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 | Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice. Remove and wash contaminated clothing before re-use. |
| Inhalation | Move person to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately. |
| Ingestion | Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. |

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects MAY CAUSE ALLERGIC SKIN REACTION.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Probable mucosal damage may contraindicate the use of gastric lavage. Contains a petroleum distillate - vomiting may cause aspiration pneumonia.

5. Fire-fighting measures**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

No information available.

Hazardous combustion productsNo information available.

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 Use personal protective equipment. Avoid contact with the skin and the eyes. Provide

adequate ventilation. Remove all sources of ignition. Wash thoroughly after handling.

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). Sweep up and shovel into suitable containers for disposal. Soak up with inert absorbent material. Prevent product from entering drains.

7. Handling and Storage

Precautions for safe handling

Handling Keep from freezing. Keep out of reach of children. Do not eat, drink or smoke when using this product. Remove all sources of ignition. Provide adequate ventilation. Avoid contact with skin and eyes. Wear personal protective equipment.

Conditions for safe storage, including any incompatibilities

Storage Keep away from open flames, hot surfaces and sources of ignition. Keep in a dry, cool and well-ventilated place. Keep out of the reach of children. Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. Keep from freezing. Keep containers tightly closed in a cool, well-ventilated place.

incompatible materials OXIDIZERS, Acids, Alkaline.

8. Exposure Controls/Personal Protection

Exposure guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

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.

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. If splashes are likely to occur, wear: Goggles.

Skin protection

Chemical resistant protective clothing.

Respiratory protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations

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

9. Physical and Chemical Properties

Information on basic physical and chemical properties

| | | | |
|-----------------------|--------------------------|-------------|--------------|
| Physical state | liquid | Odor | Solvent-like |
| appearance | amber | | |
| color | No information available | | |

| <u>Property</u> | <u>VALUES</u> | <u>Remarks/ • Method</u> |
|---|--------------------------|--------------------------|
| pH | No information available | |
| Melting point/freezing point | No information available | |
| Boiling Point/Range | No information available | |
| Flash Point | > 160 f °C / > 320 °F | |
| Evaporation Rate | No information available | |
| flammability (solid, gas) | No information available | |
| Flammability limit in air | | |
| Upper Flammability Limit | 7% | |
| Lower Flammability Limit | 0.8% | |
| vapor pressure | No information available | |
| Vapor Density | No information available | |
| Specific gravity | No information available | |
| 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 | No information available |

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

incompatible materials

OXIDIZERS, Acids, Alkaline.

Hazardous decomposition products

Nitrogen oxides (NOx), Phosgene gas, Oxides of nitrogen.

11. Toxicological Information

Information on Likely Routes of Exposure**Product information**

oxyfluorfen formulation(23%):

Acute oral LD50 (rat) = >2,985 - 4,594mg/kg
 Acute dermal LD50 (rat) = >4,000 mg/kg
 Acute inhalation LC50 (Rat) = >4.8 mg/l (4 HR)
 Eye irritation (rabbit)= severely irritating
 Dermal irritation (rabbbit) = moderately irritating

| | |
|---------------------|---|
| | Dermal sensitization = not a skin sensitizer |
| Inhalation | Vapors may irritate throat and respiratory system. |
| Eye contact | Moderately irritating to the eyes. |
| Skin contact | Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. |
| Ingestion | 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 | There are no known carcinogenic chemicals in this product. |
| Reproductive effects | Not Available. |
| STOT - Single Exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Aspiration hazard | No information available. |

Numerical Measures of Toxicity - Product information

| | |
|-------------------------|-------------------------|
| LD50 Oral | > 2985 mg/kg (rat) |
| LD50 Dermal | > 4000 mg/kg (rat) |
| LC50 Inhalation: | > 4.8 mg/l (rat) (4-hr) |

12. Ecological Information

Marine Pollutant.

ecotoxicity

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 clean equipment or dispose of equipment washwater in a manner that will contaminate water resources or arable land. Do not apply when weather conditions favor drift from treated areas.

Persistence/Degradability

No information available.

Bioaccumulation/ Accumulation

No information available.

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 Not regulated when shipped domestically by highway in non-buk containers as per 49 CFR 171.4

UN-No UN3082

Proper shipping name Environmentally hazardous substance, liquid, n.o.s (oxyfluorfen)

Hazard class 9

Packing group PG III

Marine Pollutant Marine Pollutant.

ICAO

UN-No UN3082

Proper shipping name Environmentally hazardous substance, liquid, n.o.s (oxyfluorfen)

Hazard class 9

Packing group PG III

IATA

UN-No UN3082

Proper shipping name Environmentally hazardous substances, liquid, n.o.s (Oxyfluorfen)

Hazard class 9

Packing group PG III

Description Marine Pollutant

IMDG/IMO

UN-No UN3082

Proper shipping name Environmentally hazardous substances, liquid, n.o.s (oxyfluorfen)

Hazard class 9

Packing group PG III

Marine Pollutant Marine Pollutant

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 WARNING!

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.

Keep out of Reach of Children. Harmful if swallowed. Harmful if absorbed through the skin. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals. Causes moderate eye irritation.

International Inventories

USINV Not determined

DSL/NDL Not determined

EINECS/ Does not comply

ELINCS

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/NDL - 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 and Title 40n of the Code of Federal Regulations, Part 372:

| Chemical name | SARA 313 - Threshold Values |
|--------------------------|-----------------------------|
| Oxyfluorfen - 42874-03-3 | 1.0 |

SARA 311/312 Hazardous

Categorization

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

CERCLA

SARA Product RQ 0

RCRA

Pesticide Information

State Regulations

State Right-to-Know

| Chemical name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---------------|---------------|------------|--------------|----------|--------------|
| Oxyfluorfen | | X | | | |

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-295

16. Other Information

NFPA HEALTH 1 flammability 1 Instability 0 Physical hazard -

Preparation Date 23-Apr-2015

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Revision Summary

Update to GHS format

Disclaimer

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End of MSDS