

Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 11-Aug-2017

Revision date 11-Aug-2017

Revision Number: 1

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

| <u>Product identifier</u> Product Description: | StartUP FLUDI Seed Treatment |
|---|---|
| <u>Other means of identification</u> Item#: Registration number(s) | 12U-GGU 70506-334 |
| <u>Recommended use of the chemica</u> Recommended use Uses advised against | al and restrictions on use Solution for seed treatment. Non labeled activities |
| Details of the Supplier of the Safet Supplier Address United Phosphorus Inc. 630 Freedom Business Center Suite 402 King of Prussia, PA 19406 | ty Data Sheet |
| Emergency telephone number Company Phone Number Emergency telephone number | 1-800-438-6071 Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887 Medical: Rocky Mountain Poison Control Center |

2. Hazards Identification

Classification

OSHA Regulatory Status

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

(866) 673-6671 (24hrs)

| Acute toxicity - Dermal | Category 4 |
|--------------------------------------|------------|
| Acute toxicity - Inhalation (Vapors) | Category 4 |

Label elements

EMERGENCY OVERVIEW

WARNING Hazard Statements Harmful in contact with skin HARMFUL IF INHALED Appearance Viscous Physical state Liquid Odor No characterisitic odor

Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection Do not get in eyes, on skin, or on clothing Use only outdoors or in a well-ventilated area

IF ON SKIN: Wash with plenty of soap and water Call a POISON CENTER or doctor if you feel unwell Wash contaminated clothing before reuse IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor if you feel unwell

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC) OTHER INFORMATION

3. Composition/information on Ingredients

| Chemical name | CAS-No | Weight % | Trade secret |
|---------------|-------------|----------|--------------|
| Fludioxonil | 131341-86-1 | 40 | |

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 | If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 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 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 poison control center or doctor for further treatment advice. | |
| 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 | No information available. | |
| Indication of Any Immediate Medical Attention and Special Treatment Needed | | |
| Notes to physician | Treat symptomatically. | |
| 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.

Explosion data

Protective equipment and precautions for firefighters 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 | Avoid contact with skin and eyes. Use personal protective equipment. 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 pertinenet environmental permits. | |
| Methods and material for contain | nment 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. | |
| 7. Handling and Storage | | |
| Precautions for safe handling | | |
| Handling | Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Keep out of reach of children. Provide adequate ventilation. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. | |
| Conditions for safe storage, including any incompatibilities | | |
| Storage | Keep containers tightly closed in a dry, cool and well-ventilated place. | |
| incompatible materials | Do not mix or allow contact with oxidizing agents as a hazardous chemical reaction may occur. | |
| | 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 Skin protection Respiratory 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. Chemical resistant gloves. Chemical resistant footwear plus socks. Coveralls. 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. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

| Physical state Appearance | Liquid Viscous | Odor | No characterisitic odor |
|---------------------------------------|---|------------------------|-------------------------|
| color | Off-white | | |
| Property | VALUES | Remarks/ • Method | |
| pH | 7.3 | Approximately | |
| Melting point/freezing point | No information available | | |
| Boiling Point/Range | No information available | | |
| Flash Point | > 102 °C / > 215.6 °F | Pensky Martin Closed C | Sup |
| Evaporation Rate | No information available | | |
| Flammability (solid, gas) | No information available | | |
| Flammability limit in air | | | |
| Upper Flammability Limit | No information available | | |
| Lower Flammability Limit | No information available | | |
| vapor pressure | No information available | | |
| Vapor Density | No information available | | |
| Specific gravity | 1.19 g/ml @ 20 C | | |
| Water solubility | Miscible with water | | |
| Solubility in Other Solvents | No information available | | |
| Partition coefficient: n-octanol/wate | | | |
| Autoignition temperature | No information available | | |
| Decomposition temperature | No information available | | |
| Viscosity, kinematic | No information available | | |
| Dynamic viscosity | 230.9 cP @ 20 C No information available | | |
| Explosive properties | No information available | | |
| Oxidizing properties | NO INIOMATION AVAILABLE | | |
| OTHER INFORMATION | | | |
| Softening point | No information available | | |
| molecular weight | No information available | | |
| VOC Content | No information available | | |
| density | No information available | | |
| Bulk density | 10 lbs/gal | | |
| | | | |
| | 10. Stability and Reac | tivity | |

Reactivity

None known

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

Do not mix or allow contact with oxidizing agents as a hazardous chemical reaction may occur.

Hazardous decomposition products

Hydrogen chloride. Carbon oxides. Nitrogen oxides (NOx).

11. Toxicological Information

Information on Likely Routes of Exposure

| Product | information |
|---------|-------------|
| ilouuot | mormation |

| | StartUP FLUDI Acute Oral LD50 = >5,000 mg/kg Acure dermal LD50 = >2,000 mg/kg Acute inhalation LC50 (4hr) = > 5.636 mg/L |
|--------------|---|
| Inhalation | May cause irritation of respiratory tract. Harmful by inhalation. |
| Eye contact | Contact with eyes may cause irritation. |
| Skin contact | Substance may cause slight skin irritation. |
| Ingestion | MAY BE HARMFUL IF SWALLOWED. |

Information on Toxicological Effects

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Symptoms
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No information available.

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

Numerical Measures of Toxicity - Product information

| LD50 Oral | > 5000 mg/kg (rat) |
|-----------------|-------------------------|
| LD50 Dermal | > 2000 mg/kg (rat) |
| LC50 Inhalation | > 22 mg/l (rat) (1 hr) |

12. Ecological Information

ecotoxicity

Fludioxonil Fish - Rainbow trout 96 hr LC50 = 0.47 ppm Green Algae 5 day EC50 = 0.087 ppm Invertebrate Daphnia magna 48 hr EC50 = 0.9 ppm Bird Bobwhite quail 14 day LD50 = >2000 mg/kg

Persistence/Degradability

No information available.

Bioaccumulation/ Accumulation

Does not bioaccumulate.

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 by highway in non-bulk containers this product can be shipped as not regulated. When shipped in bulk, by vessel, or internationally use the IMDG shipping description: | |
| <u>TDG</u> | When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1 | |
| <u>IATA</u> UN-No Proper shipping name Hazard class Packing group Description | UN3082 Environmentally hazardous substances, liquid, n.o.s (fludioxonil) 9 PG III Marine Pollutant | |
| IMDG/IMO UN-No Proper shipping name Hazard class Packing group Marine Pollutant | UN3082 Environmentally hazardous substances, liquid, n.o.s (fludioxonil) 9 PG III 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

CAUTION

Keep out of Reach of Children. Harmful if absorbed through the skin. Causes moderate eye irritation. Toxic to fish and aquatic inverebrates.

| International Inventories | |
|---------------------------|-------------|
| USINV | Not present |
| DSL/NDSL | Not present |
| EINECS/ | Not Present |
| ELINCS | |

| ENCS | Not Present |
|-------|-------------|
| China | Not Present |
| KECL | Not Present |
| PICCS | Not Present |
| AICS | Not Present |
| TSCA | Not Present |

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

CERCLA

Not applicable

<u>CERCLA</u> <u>RCRA</u> <u>Pesticide Information</u>

| Component | FIFRA - Restricted Use | FIFRA - Pesticide Product Other Ingredients | FIFRA - Listing of Pesticide Chemicals | California Pesticides - Restricted Materials |
|--------------------------------|------------------------|---|---|---|
| Fludioxonil 131341-86-1(40) | | | Х | |

State Regulations Not applicable

State Right-to-KnowNot applicableInternational regulationsU.S. EPA Label informationEPA Pesticide registration number70506-334

16. Other Information

| <u>NFPA</u> | HEALTH 1 | flammability 1 | Instability 0 | Physical hazard - |
|---|------------------------|----------------|---------------|-------------------|
| Preparation Date Revision date Revision Summary | 11-Aug-20 11-Aug-20 | | | |

Add to system

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End of MSDS