



Material Safety Data Sheet

United Phosphorus, Inc.

NFPA	PPE		

Issued Date 01-Sep-2009

Revision Date 21-Jan-2010

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

UPI

Contact Information

Customer Service

Phone Number

1-800-438-6071

Available Hrs

8:00 am to 5:00 pm EST

Product Name Surflan XL 2G
EPA Reg # 70506-45
Recommended Use herbicide
Product Code RC-56A

2. HAZARDS IDENTIFICATION

Emergency Overview

May cause eye irritation and corneal injury.
May cause skin irritation
Toxic to aquatic organisms

CAUTION

Appearance Light yellow, Orange.

Physical State Free flowing granules.

Odor Slight. Aromatic.

Potential Health Effects

Eyes
Skin
Inhalation
Ingestion

Moderately irritating to the eyes with possible corneal injury.
May cause skin irritation.
Dust may cause irritation to upper respiratory tract. .
May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Ingredients Name**

Chemical Name	CAS-No	Weight %	OSHA PEL
Benfluralin	1861-40-1	1	N/A
Oryzalin	19044-88-3	1	N/A

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

Rinse skin immediately with plenty of water for 15-20 minutes.
If skin irritation persists, call a physician

Inhalation

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

Ingestion

Call a physician or Poison Control Center immediately
Have person sip a glass of water if able to swallow
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

No information available

5. FIRE-FIGHTING MEASURES**Flammable Explosive Properties****Flash Point**

Not applicable

Autoignition Temperature

Not applicable

Flammability Limits in Air

Not applicable

Extinguishing Media

Carbon dioxide (CO2) Water Dry chemical

Fire/Explosion Hazard

Thermal decomposition can lead to release of irritating gases and vapours

Hazardous Combustion Products

Carbon monoxide, Oxides of nitrogen, Irritating gases may be formed if product is involved in a fire.

NFPA**Health 1****Flammability 0****Instability 0**

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid dust formation. Avoid contact with the skin and the eyes. Use personal protective equipment.
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 for Clean-up	Sweep up and shovel into suitable containers for disposal. Follow all label instructions for disposal of residual material and/or empty containers. .

7. HANDLING AND STORAGE

Handling	Keep out of reach of children. Avoid dust formation. Avoid contact with skin and eyes. Avoid breathing dust. Pesticide applicators and workers must refer to product labeling and directions for use. . Wear personal protective equipment.
Storage	Keep in a dry, cool and well-ventilated place. Keep out of the reach of children.

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	Ensure adequate ventilation, especially in confined areas
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. .
Skin Protection	Wear protective gloves/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. Wash hands and face before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wear respiratory protection. .

9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	Light yellow Orange	Odor	Slight Aromatic
Physical State	Free flowing granules	pH	(50/50 aqueous)8
Boiling Point/Range	Not available	Melting Point/Range	Not available
Specific Gravity	Not available	Solubility	Not available
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	No data available	Percent Solids	Not available
Percent Volatiles	Not available		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions
Conditions to Avoid	Avoid dust formation.
Incompatible Materials	No information available.
Hazardous Decomposition Products	Carbon monoxide. Oxides of nitrogen. Thermal decomposition can lead to release of irritating gases and vapours.
Possibility of Hazardous Polymerization	Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information	XL 2G: Acute oral LD50 = >5,000 mg/kg Acute dermal LD50 = >2,000 m/kg Acute inhalation LC50 = >5.8 mg/L (4 hr) Eye moderate irritant Skin Sensitizer
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Component Information	Oryzalin - In animals has been shown to cause liver, kidney, bladder, spleen, and/or blood effects. Repeated excessive exposure to crystalline silica may affect lung function and cause silicosis, a progressive and disabling disease of the lungs. Some evidence suggests that kidney effects may also result from excessive exposure.
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Chronic Toxicity

Carcinogenicity	Teratology/ reproductive effects: Oryzalin did not cause birth defects in laboratory animals. Other fetal effects occurred only at doses to the mother. Oryzalin did not interfere with reproduction in animal studies Mutagenicity: For oryzalin: in-vitro and animal mutagenicity studies were negative. For crystalline silica; in-vitro mutagenicity studies were negative in some cases and positive in other cases. .
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12. ECOLOGICAL INFORMATION

Ecotoxicity

Oryzalin -

Bioconcentration potential is low (BCF <100 or low Pow <3)

Degradation is expected in the soil environment within days to weeks.

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in most sensitive species).

Material is slightly toxic to birds on an acute basis (LD50 is between 501 and 2000 mg/kg).

Acute oral LD50 in bobwhite (*Colinus virginianus*) is 1046 mg/kg.

Acute oral LD50 in honeybee (*Apis mellifera*) is >100 ug.

. Information on Benefin:

Bioconcentration potential is high (BCF is >3,000 or log Pow between 5 and 7)

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 is <0.1 mg/L in most sensitive species.) .

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. .

Contaminated Packaging

Refer to product label.

14. TRANSPORT INFORMATION

DOT

Not regulated when shipped by highway in non-buk containers as per 49 CFR 171.4
When shipped in bulk use IMDG shipping description

ICAO

Not regulated

IATA

Not regulated

IMDG/IMO

Proper Shipping Name	Environmentally hazardous substances, solid n.o.s.
Hazard Class	9
UN-No	UN3077
Packing Group	PG III
Marine Pollutant	Yes

15. REGULATORY INFORMATION

International Inventories

Benfluralin

EINECS/ELINCS

Listed

RC-56A - Surflan XL 2G

Benfluralin

KECL

Listed

Oryzalin

EINECS/ELINCS

Listed

KECL

Listed

USA

Federal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %
Benfluralin	1861-40-1	1
Oryzalin	19044-88-3	1

SARA 311/312 Hazardous Categorization

Chronic Health Hazard

No

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

RCRA

Pesticide Information

State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	Category	California Prop. 65
Oryzalin	19044-88-3		Listed. Listed: September 12, 2008 Carcinogenic.

State Right-to-Know

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

21-Jan-2010

Revision Summary

Update section 15 Update product name

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End of MSDS