



United Phosphorus, Inc.

NFPA	PPE		

Issued Date 01-Sep-2009

Revision Date 27-Aug-2013

Revision Number: 2

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)

<u>Company Information</u>	<u>Contact Information</u>	<u>Phone Number</u>	<u>Available Hrs</u>
UPI	Customer Service	1-800-438-6071	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 Moderately irritating to the eyes with possible corneal injury.
Skin May cause skin irritation.
Inhalation Dust may cause irritation to upper respiratory tract.
Ingestion 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	If breathing is irregular or stopped, administer artificial respiration. May cause allergic respiratory reaction. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. May produce an allergic reaction. 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

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

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.

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.

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

Proper Shipping Name

Hazard Class

UN-No

Packing Group

Marine pollutant

Not regulated when shipped by highway in non-bulk containers as per 49 CFR 171.4 When shipped in bulk, by vessel, or internationally use the IMDG shipping description:

Environmentally hazardous substances, solid, n.o.s. (Oryzalin)

9

UN3077

PG III

Y.

ICAO

UN-No

Proper Shipping Name

Hazard Class

Packing Group

Description

UN3077

Environmentally hazardous substance, solid, n.o.s (Oryzalin)

9

PG III

Marine pollutant

IATA

UN-No

Proper Shipping Name

Hazard Class

Packing Group

ERG Code

Description

UN3077

Environmentally hazardous substances, solid, n.o.s. (Oryzalin)

9

PG III

9L

Marine pollutant

IMDG/IMO

Proper Shipping Name

Environmentally hazardous substances, solid n.o.s.

RC-56A
Surflan XL 2G

Hazard Class 9
UN-No UN3077
Packing Group PG III
Marine pollutant yes

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS/ ELINCS	ENCS	CHINA	KECL	AICS
Benfluralin				X			97-1-104; KE-05-0161	X
Oryzalin				X			97-3-168	X

USA

Federal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
Benfluralin	1861-40-1	1	1.0
Oryzalin	19044-88-3	1	1.0

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

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Benfluralin 1861-40-1 (1)			X	
Oryzalin 19044-88-3 (1)			X	

State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	Category	California Prop. 65	Non-additive, corrosive chemical type
Oryzalin	19044-88-3	Carcinogen	Carcinogen	

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Benfluralin		X			
Oryzalin		X			

International Regulations

Mexico - Grade

Mexico - Grade

Component	Category	Carcinogen Status	Exposure Limits
Oryzalin 19044-88-3 (1)	Carcinogen		

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 27-Aug-2013

Revision Summary

Recurrent confirmation/update of data

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End of MSDS