United Phosphorus, Inc.

Safety Data Sheet

Preparation Date 07-May-2015 **Revision date** 16-Oct-2015 **Revision Number:** 2

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

Product identifier
Product Description: Surflan XL 2G

Other means of identification
Item#: RC-56A
UN-No UN3077
Synonyms Not Available
Registration number(s) 70506-45

Recommended use of the chemical and restrictions on use
Recommended use Herbicide.
Uses advised against Activties contrary to label recomendation

Details of the Supplier of the Safety Data Sheet
Supplier Address
UPI
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 - Dermal	Category 5
Serious eye damage/eye irritation	Category 2B
Skin sensitization	Category 1

Label elements

EMERGENCY OVERVIEW

WARNING

hazard statements
CAUSES EYE IRRITATION
May cause an allergic skin reaction
May be harmful in contact with skin



appearance Light yellow Orange **Physical state** Free flowing granules **Odor** Slight aromatic

Precautionary Statements - Prevention
Wear protective gloves/protective clothing/eye protection/face protection
Do not eat, drink or smoke when using this product
Wash face, hands and any exposed skin thoroughly after handling

IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
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

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)
OTHER INFORMATION
• Toxic to aquatic life with long lasting effects
• May be harmful in contact with skin

3. Composition/information on Ingredients

Chemical name	CAS-No	Weight %	Trade secret
Oryzalin	19044-88-3	1	
Earth clay	8031-18-3	>40	

*The exact percentage (concentration) 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 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 Call a physician or poison control center immediately. 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.

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 No information available.

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

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

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 containment and cleaning up

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

Precautions for safe handling

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.

Conditions for safe storage, including any incompatibilities

Storage Keep in a dry, cool and well-ventilated place. Keep out of the reach of children.

incompatible materials No information available.

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

Information on basic physical and chemical properties

Physical state	Free flowing granules		
appearance	Light yellow Orange	**Odor**	Slight aromatic
color	No information available		

Property	**VALUES**	**Remarks/ • Method**
pH	8	
Melting point/freezing point	No information available	
Boiling Point/Range	No information available	
Flash Point	No information available	
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	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
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.

11. Toxicological Information

Information on Likely Routes of Exposure

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

Inhalation Avoid breathing vapors or mists.

Eye contact Moderately irritating to the eyes.

Skin contact May cause sensitization of susceptible persons.

Ingestion MAY BE HARMFUL IF SWALLOWED.

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.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Oryzalin 19044-88-3	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 4.79 mg/L

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 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.
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 > 5000 mg/kg (rat)
LD50 Dermal > 2000 mg/kg (rat)
LC50 Inhalation: LC50/inhalation/4h/rat = > 5.8 mg/l

12. Ecological Information

Marine Pollutant.

ecotoxicity

Oryzalin:
Highly toxic to aquatic organisms LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species. Slightly toxic to birds on an acute basis LD50 between 501 and 2000 mg/kg.
Bobwhite quail acute oral LD50 1046 mg/kg
Honeybee acute oral LD50 >100 ug/bee

Persistence/Degradability
No information available.

Bioaccumulation/ Accumulation
Bioaccumulative potential.

Chemical name	Log Pow
Oryzalin 19044-88-3	> 2

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 When shipped in bulk, by vessel, or internationally use the IMDG shipping description:

UN-No	UN3077
Proper shipping name	Environmentally hazardous substances, solid, n.o.s (Oryzalin)
Hazard class	9
Packing group	PG III
Marine Pollutant	Marine Pollutant.

ICAO

UN-No	UN3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s (Oryzalin)
Hazard class	9
Packing group	PG III
Description	Marine Pollutant

IATA

UN-No	UN3077
Proper shipping name	Environmentally hazardous substances, solid, n.o.s (Oryzalin)
Hazard class	9
Packing group	PG III
Description	Marine Pollutant

IMDG/IMO

UN-No	UN3077
Proper shipping name	Environmentally hazardous substances, solid n.o.s.
Hazard class	9
Packing group	PG III
Marine Pollutant	Yes

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.

Keep out of Reach of Children. Causes moderate eye irritation. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals. Toxic to fish and aquatic inverebrates.

International Inventories

USINV	Not determined
DSL/NDSL	Not determined
EINECS/ ELINCS	Does not comply
ENCS	Does not comply
China	Does not comply
KECL	Complies
PICCS	Does not comply
AICS	Complies
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
Y

Chemical name	SARA 313 - Threshold Values
Oryzalin - 19044-88-3	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
RCRA

Pesticide Information

State Regulations

Component	CAS-No	CATEGORY	California Prop. 65	Non-additive, corrosive chemical type
Oryzalin 19044-88-3 (1)	19044-88-3	Carcinogen	Carcinogen	

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Oryzalin		X			

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-45

16. Other Information

NFPA **HEALTH** 1 **flammability** 0 **Instability** 0 **Physical hazard** -

Preparation Date 07-May-2015
Revision date 16-Oct-2015
Revision Summary
Update section 11 Update section 2

End of MSDS