

SURFLAN A.S. HERBICIDE MATERIAL SAFETY DATA SHEET

Manufacturer's Name & Address
Southern Agricultural Insecticides, Inc.
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I. NOMENCLATURE

Product Name: SURFLAN A.S. EPA Reg. No. 62719-113-829
Chemical Name: 3,5-Dinitro-N4,-N4-dipropylsulfanilamide
Common Name: Oryzalin

II. INGREDIENTS

	CAS #	nominal %
Oryzalin:	019044-88-3	40.4%
other ingredients included below		59.6%
Glycerin	000056-18-5	

EXPOSURE GUIDELINES

OSHA PEL	ACGIH TLV
total 15 mg/m ³	10 mg/m ³
respirable 5 mg/m ³	

Propylene Glycol	000057-55-6	
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AIHA WEEL
total 50 ppm
aerosol 10 mg/m³

III. PHYSICAL DATA

Boiling Point: 212°F, @ 760 mm/hg	Specific Gravity: 1.138 - 1.239 at 25°C
Vapor Pressure: (mmHg) 23 at 25°C	Vapor Density: (air=1) 1.178 at 25°C
Solubility In Water: miscible in water	pH (Aqueous 50/50): 5.0- 6.8
Appearance/Odor: Bright orange opaque liquid, slight aromatic odor	

IV. FIRE AND EXPLOSION DATA

Flash Point: (SCC) No ignition up to 200°F, 93.3°C, Flammable Limits: LeI N.A, .Uel N.A.(Water based)
Extinguishing Media: Surflan A.S. is a water based suspension and will not burn.
Special Fire Fighting Procedures: If product is involved in a fire, positive-pressure, self-contained breathing apparatus and full protective clothing are recommended.
Unusual Fire and Explosion Hazards: This material will not burn until a sufficient amount of water has evaporated. At this point, the material will exhibit the flammability characteristics of propylene glycol and oryzalin. The explosive potential of oryzalin as an airborne dust is rated as severe. The minimum ignition temperature for a dust cloud is 714°F, 379°C.

V. FIRST AID

FOR EYE Exposure: Flush eyes with water holding eye lids apart to ensure washing underside of lids. If irritation persists call a physician.
FOR SKIN Exposure: Wash thoroughly, including hair if contaminated, with soap and water. Remove contaminated clothing. Wear freshly laundered clothing daily. Get medical attention if irritation develops.
FOR INHALATION: Remove individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, give artificial respiration, preferable CPR and get medical attention immediately.
If SWALLOWED: Do not induce vomiting. Call a physician or Poison Control Center. If available, administer 6-8 heaping tsp. of activated charcoal with a large quantity of water. Do not give anything by mouth to an unconscious person. Immediately transport to a medical care facility and see a physician.
Note to PHYSICIAN: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

VI. Reactivity

Stability: Stable (No known conditions to avoid.) Materials to Avoid: None known.
Hazardous Decomposition Products: Oxides of Nitrogen and other toxic gasses may be formed. If the water in the mixture evaporates the resultant mixture should be handled with care. The explosive potential of oryzalin as an airborne dust is rated as severe. See section IV.
Hazardous Polymerization: Does not Occur.

VII. SPILL OR LEAK PROTECTION

Environmental Data: Do not apply directly to water or wetland. Do not contaminate water when disposing of equipment washwaters. Cover or incorporate spills.

If Spilled: Use absorbent material to contain and clean up small spills and dispose as waste. Large spills report to CHEMTREC for assistance. Prevent run off.

Waste Disposal: Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be used according to label directions or at an approved waste disposal facility. Follow all regulatory requirements pertaining to disposal. Read product label.

VIII SPECIAL PROTECTION

Respiratory: Atmospheric levels should be maintained below the exposure guideline. For most conditions, respiratory protection should not be needed; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

Ventilation: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Applicators and handlers should wear clean, long-sleeved shirt, long pants waterproof gloves, and shoes plus socks. and goggles or safety glasses with side shields. Remove contaminated clothing and wash exposed skin thoroughly if pesticide gets inside. Do not wear contaminated clothing.

Launder clothing separately from household laundry.

IX. HEALTH HAZARD DATA

Harmful if swallowed, inhaled or absorbed through skin. Avoid contact skin contact.

Eyes: May cause slight temporary eye irritation, corneal injury is unlikely.

Skin Contact: Prolonged exposure may cause skin irritation. Prolonged or frequently repeated skin contact may cause allergic skin reactions and/or skin sensitization some individuals.

Skin Absorption: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD 50 for skin absorption in rabbits is >2000 mg/kg.

Ingestion: Single dose oral toxicity is low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. The oral LD50 for rats is 5000 mg/kg.

Systemic Effects (other target organ): In animals, has been shown to cause liver, kidney, bladder, spleen or blood effects. Repeated excessive ingestion of propylene glycol may cause central nervous system effects.

Cancer Information: In tests conducted using oryzalin, thyroid follicular cell tumors noted in rats were considered to represent a unique response of rats to p-substituted. aminobenzene sulfonamides. Benign skin and adnexal tumors were seen in treated rats as well, and may also have been secondary to thyroid effects.

Teratology (birth defects): Oryzalin did not cause birth defects, other fetal effects occurred only at doses toxic to the mother.

Reproductive Effects: Most components did not interfere with reproduction in animals. One minor component which affected reproduction was believed to act through an alteration of the nutritional status of the animals when fed at exaggerated doses.

MUTAGENICITY (effects on genetic material): Results of in vitro (test tube) mutagenicity tests have been negative. Results of mutagenicity tests in animals have been negative.

X. SPECIAL PRECAUTIONS

Handling Precautions: Harmful if swallowed, inhaled, or absorbed through the skin. Avoid breathing vapors or spray mist. Handle carefully so as to avoid container damage. Avoid contact with skin, eyes, or clothing.

Storing Precautions: Do not put leaking packages into storage. Store in original containers.

Other Precautions: KEEP OUT OF REACH OF CHILDREN. Avoid contamination of feed and foodstuffs.

Avoid contamination of water supplies, streams, and ponds.

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

XI. TRANSPORTATION & SELECTED REGULATORY

Freight classification Herbicides liquid, NOS, NMFC 50320

Sara 313 Information. This product contains the following substance subject to the reporting requirements; chemical name oryzalin [4-(dipropylamino)-3,5-dinitrobenzenesulfonamide],

CAS# 19044-88-3, concentration 40.4%

SARA Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: An immediate health hazard.

Toxic Substances Control Act (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

OSHA Hazard Communication Standard: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

National Fire Protection Association (NFPA) Ratings:

Health: 2

Flammability: 0

Reactivity: 0

This information relates solely to the designated product and is not inclusive for combinations with other materials. This information is given without warranty or representation. Information is based on data we believe to be correct as of the date here of. This information is furnished solely for your consideration, investigation, and verification. Before using any product READ THE LABEL.

Re Surflan A.S. Herbicide, MSDS, DowElanco 1/95