

MATERIAL SAFETY DATA SHEET

STORM™ HERBICIDE

Effective Date: 12/2/04

MSDS: Revision 2

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: STORM Herbicide

COMPANY IDENTIFICATION: United Phosphorus, Inc.
423 Riverview Plaza
Trenton, NJ 08611
1-800-247-1557 or www.upi-usa.com

FOR MEDICAL EMERGENCIES, contact the National Pesticide Information Center 1-800-858-7378.
FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	%	PEL/TEV - SOURCE
Sodium Salt of Bentazon*	50723-80-3	29.2%	5 mg/m(3) recommended by UPI
Sodium Salt of Acifluorfen**	62476-59-9	13.4%	1.0 mg/m(3) Rohm & Haas recommended
Inert Ingredients	N/A	57.4%	Not established

* Sodium salt of bentazon: sodium(3-isopropyl-1H-2,1,3-benzothiadiazin-4(3H)-one-2,2-dioxide)

** Sodium salt of acifluorfen: sodium 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoate

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Light to dark amber liquid with an unusual mild odor. May cause eye and skin irritation.

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

Effects of Overexposure:

See Product Label and Directions for Use for additional precautionary statements.

Precautionary Statements

Hazards to Humans and Domestic Animals

DANGER

Corrosive. Causes irreversible eye damage. Harmful if swallowed or absorbed through the skin.

Do not get in eyes or on clothing. Avoid contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Existing medical conditions aggravated by exposure to this material: No information found on this mixture.

SECTION 4 FIRST AID

IF IN EYES

Hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

IF ON SKIN OR CLOTHING

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.

IF SWALLOWED:

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

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IF INHALED

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Have the container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT: Not Determined

FLAMMABLE LIMITS IN AIR (%by Vol):

Lower: Not Determined

Upper: Not Determined

AUTOIGNITION TEMPERATURE: Not Determined

EXTINGUISHING MEDIA: Use water fog, alcohol foam or dry chemical extinguishing media.

FIRE AND EXPLOSION HAZARDS: Possibility of toxic materials being generated during combustion.

SPECIAL FIREFIGHTING PROCEDURES: Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

SECTION 6 ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS: Avoid contact with spilled material. Whenever possible, recover material for use according to label directions. Isolate area and confine spill. Dike surrounding area and absorb with sand, cat litter or commercial clay. Place spilled and damaged package in a labeled container. This material is not regulated under RCRA or CERCLA ("Superfund"). For large spills contact CHEMTREC at 1-800-424-9300. Prevent runoff.

Hazardous Substance Superfund: No

RQ(lbs): None

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect material from freezing temperatures.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

EYE PROTECTION: Chemical goggles when respirator does not provide eye protection.

RESPIRATORY PROTECTION: Supplied air respirators should be worn if large quantities of mist are generated or prolonged exposure is possible.

PROTECTIVE CLOTHING: Gloves, long-sleeved shirt, and long pants.

VENTILATION: Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions For Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT @ 760 mm Hg: 212°F (approx.) **VAPOR PRESSURE mm Hg @ 20°C:** N/D
SOLUBILITY IN WATER: Infinite **SPECIFIC GRAVITY:** 1.22 g/mL (10.15 lb/gal)
APPEARANCE: Light to dark amber liquid **ODOR:** Unusual
pH: 8-9

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: Protect material from freezing temperatures.
CHEMICAL INCOMPATIBILITY: None known
HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may generate SO(2), NOx, HCl, HF
HAZARDOUS POLYMERIZATION: Does not occur.
CORROSIVE TO METAL: No **OXIDIZER:** No

SECTION 11 TOXICOLOGICAL INFORMATION

TOXICOLOGICAL TEST DATA:

For STORM herbicide:

Rat, Oral LD50 – 1470 mg/kg

Rat, Dermal LD50 > 2000 mg/kg

Rat, Inhalation LC50 > 5.5 mg/L

Rabbit, Eye Irritation – Severe irritation

Rabbit, Skin Irritation – Not irritating

Guinea pig, Dermal Sensitizer – Sensitizer

OSHA, NTP, or IARC Carcinogen: Sodium acifluorfen, an active ingredient in this product, has been designated as a probable carcinogen by the U.S. EPA.

SECTION 12 ECOLOGICAL INFORMATION

ENVIRONMENTAL TOXICITY DATA

For Sodium Acifluorfen

Aquatic:

Rainbow Trout, 96 hr LC50 = 54 mg/L

Bluegill Sunfish, 96 hr LC50 = 31 mg/L (static)

Daphnia magna, 48 hr EC50 = 28 mg/L

Avian:

Bobwhite Quail, LC50 > 10,000 mg/kg

Mallard Duck, LC50 > 10,000 mg/kg

For Sodium Bentazon:

Aquatic:

Rainbow Trout, 96 hr LC50 > 100 mg/L

Bluegill Sunfish, 96 hr LC50 > 100 mg/L

Daphnia magna, 48 hr EC50 > 500 mg/L

Avian:

Bobwhite Quail, LC50 > 5000 mg/kg

Mallard Duck, LC50 > 5000 mg/kg

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Apply according to label directions or bury in a licensed facility. Do not discharge into waterways or sewer systems. Consult federal, state or local disposal authorities for approved alternate procedures.

DISPOSAL METHOD (Plastic Containers): Triple rinse container (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION INFORMATION:

D.O.T. Proper Shipping Name (49CFR172.101-102): None

D.O.T. Hazard Classification (CFR 172.101-102): None

Hazardous Substance (49CFR CERCLA List): None RQ(lbs): None

D.O.T. Labels Required (49CFR172.101-102): None

D.O.T. Placards Required (CFR172.504): None

Poison Constituent (49CFR172.203(K)): NA

Bill of Lading Description: Compounds Tree or Weed Killing (Herbicides), NOIBN

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS

SARA 311/312 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:

FIRE: No **PRESSURE:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes **TPQ(lbs):** 10,000

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

CATEGORY	RATING
Health	3
Flammability	0
Reactivity	0

NFPA 30 Storage Classification: Class IIIB

SECTION 16 OTHER INFORMATION

MSDS STATUS: Rev. 2 replaces Version 1, 11/17/03. Reasons for change: formatting throughout; update company and emergency contact information; addition of page numbers.

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state, or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

The information herein is given in good faith, but no warranty, express or implied, is made. Consult United Phosphorus, Inc. for further information.