



MATERIAL SAFETY DATA SHEET

United Phosphorus, Inc.

NFPA	PPE	

Issued Date 13-Dec-2012

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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 R&D Technical Service	1-800-438-6071 610-878-6100	8:00 am to 5:00 pm EST 8:00 am - 5:00 pm (EST)

Product name	Tricor 75 DF Herbicide (CANADA)
EPA Reg #	PMRA PCP No. 30661
Recommended use	Herbicide
Product code	12U-144C

2. Hazards Identification

EMERGENCY OVERVIEW		
May cause eye and skin irritation May cause irritation to the respiratory tract. irritant May cause drowsiness and dizziness Very toxic in contact with skin Very toxic if swallowed corrosive		
DANGER		
appearance light, tan.	Physical state granular.	Odor sweet. Musty.
Potential health effects		

EYES	May cause slight irritation.
skin	May cause mild skin irritation. Very toxic in contact with skin.
Ingestion	Very toxic if swallowed.

3. Composition/information on Ingredients

Ingredients Name

Component	CAS-No	Weight %	OSHA PEL
Silicon dioxide 112926-00-8 (1)	112926-00-8	1	(vacated) TWA: 6 mg/m ³ TWA: 20 mppcf : (80)/(% SiO ₂) mg/m ³ TWA
Metribuzin technical 21087-64-9 (75)	21087-64-9	75	(vacated) TWA: 5 mg/m ³

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. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
Skin contact	Take off contaminated clothing Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice. Call a physician immediately Wash off immediately with plenty of water for at least 15 minutes Remove and wash contaminated clothing before re-use
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 Never give anything by mouth to an unconscious person Do not induce vomiting unless told to do so by a poison control center or doctor Call a physician immediately Do not induce vomiting without medical advice
Notes to physician	No information available Treat symptomatically

5. Fire-fighting measures

Flammable Explosive Properties

flash point	Not Applicable
Autoignition temperature	Not Available
Flammability Limits in Air	Not available
Extngushing Media	Dry chemical, Water.
Fire/Explosion Hazard	Dust clouds generated during handling and/or storage can form explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables.
Hazardous combustion products	Dust clouds generated during handling and/or storage can form

explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables.

As with any dry material, pouring this material or allowing it to free fall or be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or any flammable materials which may come into contact with the material or its container. Check that all equipment is properly grounded and installed to satisfy electrical classification requirements, Carbon dioxide (CO₂), Sulfur oxides, Methyl mercaptan, Amines.

NFPA

HEALTH 3

flammability 0 1

Instability -

6. Accidental release measures

Personal Precautions	Avoid contact with the skin and the eyes.
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.

7. Handling and Storage

Handling	Keep out of reach of children. Provide adequate ventilation. Fine dust dispersed in air may ignite.
Storage	Store in cool/well-ventilated place. Keep containers tightly closed in a cool, well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL
Silicon dioxide		(vacated) TWA: 6 mg/m ³ TWA: 20 mppcf : (80)/(% SiO ₂) mg/m ³ TWA
Metribuzin technical	TWA: 5 mg/m ³	(vacated) TWA: 5 mg/m ³

Engineering controls Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems. 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.

Personal protective equipment

Eye/Face Protection

Eye contact should be avoided through the use of chemical safety glasses, goggles, or a faceshield selected in regard to exposure potential.

Skin protection

Wear protective gloves/clothing. Socks and footwear.

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.

9. Physical and Chemical Properties

appearance	light tan	Odor	sweet Musty
Physical state	granular	pH	8.9
Boiling Point/Range	Not Available	Melting Point/Range	9.9 °C / 50 °F
Specific gravity	Not Available	solubility	1100 ppm @ 20 C (metribuzin)
evaporation rate	Not Available	vapor pressure	1.2 X 10 ⁻⁷ mmHg @ 20 C
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 normal conditions
Conditions to avoid	Sustained temperatures above 100 F
incompatible materials	ketones Aldehydes
Hazardous decomposition products	Carbon dioxide (CO ₂) Oxides of sulfur Amines Methyl mercaptans
Possibility of Hazardous Polymerization	None under normal processing

11. Toxicological Information

Acute toxicity

Product information

TriCor DF-

Acute oral LD50 rat = 2379 mg/kg (male) 2794 mg/kg (female)

Acute dermal LD50 rabbit = >5,000 mg/kg

Eye - rabbit = Minimal irritation to the conjunctiva was observed with all irritation resolving within 4 days.

Skin effects- rabbit = Not a dermal irritant Metribuzin -

In a three week dermal toxicity study, rabbits were treated with metribuzin at doses of 40, 200, and 1000 mg/kg for 6 hr/dy, 5 dys/wk. The high dose evidence of increased cholesterol levels and liver enzyme function was noted. Thyroxine levels were increased at doses of 200 mg/kg and above. All of these effects were slight and reversible. The NOEL was 40 mg/kg. In subacute inhalation studies, rats were exposed to aerosol concentrations of metribuzin ranging from 31 to 745 mg/cubic meter for 6 hr/dy, 5 dys/wk, for 3 weeks. Effects observed included behavioral changes, decreased body weight gains, liver enzyme induction and organ weight effects. The NOEC was 31 mg/cubic meter.

Oral LD50 (rat) = 2,194 mg/kg

Dermal LD50 (rat) = >5,000 mg/kg

Inhalation LC50 (4 hr rat) = 0.709 mg/L

Chronic toxicity

Carcinogenicity

The information below indicates whether any agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Silicon dioxide		Group 3		

12. Ecological Information

ecotoxicity

Metribuzin - can travel (seep or leach) through soil and can contaminate ground water which may be used as drinking water.

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

Non refillable container. Do not reuse this container. (For plastic containers). Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. The offer for recycling if available 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. (For paper bags). Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. Transport Information

<u>DOT</u>	NOT REGULATED
<u>ICAO</u>	NOT REGULATED
<u>IATA</u>	NOT REGULATED
<u>IMDG/IMO</u>	NOT REGULATED
<u>TDG</u>	NOT REGULATED

15. Regulatory Information

International Inventories

Chemical name	TSCA	DSL	NDSL	EINECS/ ELINCS	ENCS	China	KECL	AICS
Silicon dioxide		X			Present	X	Present	X
Metribuzin technical				X		X	Present	X

USA

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

Chemical name	CAS-No	Weight %	SARA 313 - Threshold Values
Metribuzin technical	21087-64-9	75	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

SARA Product RQ 0

RCRA

Pesticide Information

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Silicon dioxide 112926-00-8 (1)			X	

**12U-144C
Tricor 75 DF Herbicide (CANADA)**

Metribuzin technical 21087-64-9 (75)			X	
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State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Silicon dioxide	X	X	X		
Metribuzin technical	X	X	X		

International regulations

Mexico - Grade Severe risk, Grade 4

Component	CATEGORY	Carcinogen Status	Exposure limits
Silicon dioxide 112926-00-8 (1)			Mexico: TWA 10 mg/m ³

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

The preparation is classified as dangerous in accordance with Directive 1999/45/EC

16. Other Information

Revision date 31-Mar-2014

Revision Summary

Update section 14

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End of MSDS