



Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 15-Sep-2016

Revision date 09-Feb-2017

Revision Number: 2

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

Product identifier

Product Description: Metricor DF

Other means of identification

Item#: 12U-144Z

Registration number(s) 70506-103

Recommended use of the chemical and restrictions on use

Recommended use Herbicide.

Uses advised against Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet

Supplier Address

United Phosphorus Inc.
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406

Emergency telephone number

Company Phone Number

1-800-438-6071

Emergency telephone number

Chemtec: (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 not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

Label elements

EMERGENCY OVERVIEW

Appearance Light Tan

Physical state granular

Odor sweet Musty

Hazards Not Otherwise Classified (HNOC)

OTHER INFORMATION

- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life
- May be harmful in contact with skin

3. Composition/information on Ingredients

| Chemical name | CAS-No | Weight % | Trade secret |
|---------------|--------|----------|--------------|
|---------------|--------|----------|--------------|

| | | | |
|----------------------|------------|-----|--|
| Kaolin | 1332-58-7 | 8.6 | |
| Metribuzin technical | 21087-64-9 | 75 | |

If CAS number is "proprietary", the specific chemical identity and percentage 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 a poison control center or doctor for treatment advice. |
| Inhalation | 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. Call a physician or poison control center immediately. |
| 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. Treat symptomatically.

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 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.

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 contact with skin and eyes.

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 pertinent environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling Keep out of reach of children. Fine dust dispersed in air may ignite. Avoid dust formation in confined areas. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a cool, well-ventilated place.

incompatible materials ketones. Aldehydes.

8. Exposure Controls/Personal Protection

Exposure guidelines

| Chemical name | ACGIH TLV | OSHA PEL |
|----------------------|--|---|
| Kaolin | TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable fraction | TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction |
| 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

Information on basic physical and chemical properties

| | | | |
|-----------------------|--------------------------|-------------|-------------|
| Physical state | granular | Odor | sweet Musty |
| Appearance | Light Tan | | |
| color | No information available | | |

| <u>Property</u> | <u>VALUES</u> | <u>Remarks/ • Method</u> |
|---|------------------------------------|--------------------------|
| pH | 8.9 | (1% aq) |
| Melting point/freezing point | 9.9 °C / 50 °F | |
| 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 | 1.2 X 10 ⁻⁷ mmHg @ 20 C | |
| 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

Sustained temperatures above 100 F.

incompatible materials

ketones. Aldehydes.

Hazardous decomposition productsCarbon dioxide (CO₂). Oxides of sulfur. Amines. Methyl mercaptans.**11. Toxicological Information****Information on Likely Routes of Exposure**

| | |
|----------------------------|---|
| Product information | <p>Metri/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</p> <p>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</p> |
| Inhalation | May cause irritation of respiratory tract. |
| Eye contact | Irritating to eyes. |
| Skin contact | May cause irritation. |
| Ingestion | MAY BE HARMFUL IF SWALLOWED. |

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 The information below indicates whether any agency has listed any ingredient as a carcinogen.
Reproductive effects Not Available.
STOT - Single Exposure No information available.
STOT - Repeated Exposure No information available.
Target organ effects liver, Respiratory System, Central Nervous System (CNS), Thyroid.
Aspiration hazard No information available.

Numerical Measures of Toxicity - Product information

LD50 Oral 2379 mg/kg (rat)
LD50 Dermal > 5000 mg/kg (rat)
LC50 Inhalation No information available

12. Ecological Information

ecotoxicity

Do not apply directly to water to areas where surface water is present or to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment washwater in a manner that will contaminate water resources or arable land. Do not apply when weather conditions favor drift from treated areas.

Persistence/Degradability

No information available.

Bioaccumulation/ Accumulation

No information available.

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

TDG

NOT REGULATED

IATA

NOT REGULATED

IMDG/IMO

NOT REGULATED

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. Harmful if swallowed. Causes moderate eye irritation.

International Inventories**USINV**

Does not comply

DSL/NDSL

Does not comply

EINECS/

Does not comply

ELINCS**ENCS**

Does not comply

China

Does not comply

KECL

Does not comply

PICCS

Does not comply

AICS

Does not comply

TSCA

Does not comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - 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

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:

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

SARA Product RQ 0

RCRA

Pesticide Information

State Regulations

State Right-to-Know

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-103

16. Other Information

NFPA HEALTH 1 flammability 1 Instability 0 Physical hazard -

Preparation Date 15-Sep-2016

Revision date 09-Feb-2017

Revision Summary

Correct spelling error(s)

Disclaimer

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End of MSDS