

SECTION 3 HAZARDS IDENTIFICATION

Potential Health Effects:

- a. **Relevant routes of exposure:** Skin, lungs, eyes, ingestion
- b. **Adverse health effects from exposure to product or ingredients of product:**
- i) length of exposure
 - ii) severity of effect
 - iii) target organ
 - iv) type of effect
 - v) signs and symptoms

ACUTE: Exposure to eyes may result in moderate irritation. Slight skin irritation can occur when handling finely ground product.

CHRONIC:

TARGET ORGANS:

Active Ingredients

Dicamba (Sodium Salt): Eyes and Skin

Primisulfuron: Liver, Kidneys, Bone, Testes, Thyroid, Bladder, and Gallbladder

Inert Ingredients

Binder : Not Available

Dispersing Agent : Eyes, Skin and Respiratory Tract

Potassium Sulfate : None Known

Starch : Respiratory Tract

Surfactant : Eyes

- vi) **medical conditions known to be aggravated:** None known

SECTION 4 FIRST AID MEASURES

If **POISONING IS SUSPECTED**, immediately contact the **poison information centre**, doctor or nearest hospital. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given. Call the Syngenta Emergency Line [**1-800-327-8633 (1-800-FASTMED)**], for further information.

INGESTION: If victim is fully conscious, give a large quantity of water to drink and get medical attention. Induce vomiting under the direction of a physician. Never give anything by mouth, or induce vomiting, in an unconscious person.

EYES: Immediately rinse eyes with a large amount of running water. Hold eye lids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.

SKIN: Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.

INHALATION: Move victim from contaminated area to fresh air. Apply artificial respiration if necessary.

NOTE TO PHYSICIAN: There is no specific antidote if this product is ingested.

If a large amount has been ingested and emesis is inadequate, lavage stomach. Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

1. **Flash point and method:** Not applicable.
2. **Upper and lower flammable (explosive) limits in air:** Not applicable
3. **Autoignition temperature:** Not available
4. **Hazardous combustion products:** Thermal decomposition products may include, but are not limited to, HCl, Organochlorine products, and Carbon Monoxide.

5. **Conditions under which flammability could occur:** Not flammable
6. **Extinguishing media:** Use dry chemical, foam, or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated.
7. **Sensitivity to explosion by mechanical impact:** No
8. **Sensitivity to explosion by static discharge:** No

SECTION 6 ACCIDENTAL RELEASE MEASURES

- a. **Procedures for dealing with release or spill:**
 Wear proper protective clothing – safety glasses with side shields or chemical goggles, nitrile gloves, rubber boots, long-sleeved shirt, long pants, head covering, and a particulate filter, NIOSH approved per 42 CFR Part 84. Select N or R or P type depending on the oil characteristics of other air contaminants present. Filter efficiency may range from 95 – 99.97% as appropriate for the oil characteristics of any other air contaminants present. Stop further release and spread of contamination. For small spills, sweep up, keeping dust to a minimum and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

SECTION 7 HANDLING AND STORAGE

- a. **Handling practices:**
 KEEP OUT OF REACH OF CHILDREN and animals. **Avoid contact with eyes, skin or clothing and avoid breathing spray mist.** Wear protective clothing and equipment (see Section 8). After work, rinse gloves before removal, remove protective equipment, and wash hands before eating, smoking, drinking, applying cosmetics or using the toilet. Clean up spilled material immediately, and clean clothes and equipment after use. Wash contaminated clothing before re-use. Keep product, wash or rinse water, and contaminated materials out of water. Keep containers closed when not in use. Do not contaminate food, feed, or food-handling equipment.
- b. **Appropriate storage practices/requirements:**
 Store in original containers in a well-ventilated, cool, secure area inaccessible to children. Keep separate from other products to prevent cross contamination. Store away from heat, flame, wildlife, domestic animals and pets. Clean up spilled material immediately.

National Fire Code classification:

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- a. **Applicable control measures, including engineering controls:**
 Ensure all work areas are well ventilated. Provide safety showers and eye wash station near workplace.
- b. **Personal protective equipment for each exposure route:**
 INGESTION: Do not eat, drink, use tobacco or apply cosmetics in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.
 INHALATION: To avoid breathing dust, use a particulate filter, NIOSH-approved per CFR Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95 – 99.97% as appropriate for the size distribution of dusts present.

EYES: To avoid eye contact, wear chemical goggles or safety glasses with side shields.
SKIN: To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants and a head covering.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

- a. **Appearance:** Light brown solid
- b. **Formulation Type:** Water dispersible granule
- c. **Odour:** Sweet
- d. **pH:** 7.9 (1% suspension in water)
- e. **Vapour pressure and reference temperature:** Dicamba (Sodium salt): Not available
Primisulfuron-methyl: 5×10^{-3} mPA @ 25°C
- f. **Vapour density:** Not applicable
- g. **Boiling point:** Not applicable
- h. **Melting point:** Not available
- i. **Specific gravity:** 0.62 g/cm³.
- j. **Evaporation Rate:** Not applicable
- k. **Water/oil partition coefficient:** Not applicable
- l. **Odour threshold:** Not applicable
- m. **Viscosity:** Not applicable
- n. **Solubility:** Dicamba (Sodium salt): 360.0 g/L @ 25°C
Primisulfuron: 3.3 mg/L @ 25°C

SECTION 10 STABILITY AND REACTIVITY

- a. **Chemical stability:** Stable under normal use and conditions.
- b. **Conditions to avoid:** None known
- c. **Incompatibility with other materials:** None known
- d. **Hazardous decomposition products:** Can decompose at high temperatures forming toxic gases.
- e. **Hazardous polymerisation:** Will not occur

SECTION 11 TOXICOLOGICAL INFORMATION

Information on product:

- a. **LD50 (species and route)**

ORAL LD50 (Rat):	2932 mg/kg body weight	<u>Slightly Toxic</u>
DERMAL LD50 (Rabbit)	>2020 mg/kg body weight	<u>Slightly Toxic</u>

LC50 (species)

INHALATION LC50 (Rat):	>3.6 mg/l air - 4 hours	<u>Slightly Toxic</u>
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- b. **Irritation data**

EYE:	Moderately irritating (Rabbit)
SKIN:	Slightly irritating (Rabbit)
- c. **Results of studies on:**
 - Sensitisation:** Not a sensitiser (Guinea Pig)
 - Carcinogenicity:** Dicamba (Sodium salt): No carcinogenic effects
Primisulfuron: Liver tumors at extremely high doses (mice)
 - Reproductive toxicity:** Dicamba (Sodium salt): No reproductive effects (rats)
Primisulfuron: No reproductive effects (rats)
 - Teratogenicity:** Dicamba (Sodium salt): Not teratogenic (rats)
Primisulfuron: No teratogenic or embryonic effects (rats and rabbits)
 - Mutagenicity:** Dicamba (Sodium salt): DNA Repair (in vitro) was positive. Ames Test and Chromosomal aberration were both negative
Primisulfuron: No mutagenic effects in a battery of tests
 - Chronic exposure:** Dicamba (Sodium salt): No effects observed

Primisulfuron: Effects on liver, kidneys, teeth, bone and testes (rats and mice), bladder (mice), gallbladder and thyroid (dogs) at extremely high doses.

d. **Other materials that show synergistic toxic effects together with the product:** None known

e. **Other:**

Binder:

Dust may produce a respiratory allergenic response and/or irritation in some individuals. May cause severe eye injury but the damage is reversible.

Dispersing Agent:

Exposure can result in eye, skin and respiratory tract irritation.

Potassium Sulfate:

Possible nuisance dust effects, sneezing or coughing. Potassium poisoning may occur in rare cases of long exposure or ingestion.

Starch:

Exposure may result in irritation to eyes, skin or upper respiratory tract. Prolonged contact can cause chemical pneumonitis.

Surfactant:

Exposure may cause severe irritation with moderate corneal injury. Excessive exposure by inhalation may cause irritation to upper respiratory tract and lungs.

SECTION 12 ECOLOGICAL INFORMATION

Summary of Effects:

Dicamba (Sodium Salt): Not Available

Primisulfuron: Practically nontoxic to birds, fish and invertebrates

Eco-Acute Toxicity:

Primisulfuron: Rainbow Trout 96-hour LC50 210 ppm
Bluegill Sunfish 96-hour LC50 >180 ppm
Daphnia magna 48-hour LC50 260 ppm
Bobwhite Oral LD50 2,150 mg/kg
Mallard Oral LD50 2,150 mg/kg
Bobwhite 8-day Dietary LC50 5,000 ppm
Mallard 8-day Dietary LC50 5,000 ppm

Dicamba (Sodium Salt): Rainbow Trout 96-hour LC50 >1,000 mg/L
Bluegill Sunfish 96-hour LC50 >1,000 mg/L
Daphnia magna 48-hour LC50 1,600 mg/L

Eco-Chronic Toxicity:

Primisulfuron: Fish (Fathead minnow) Early Life Stage MATC 14.6 ppm
Invertebrate (Daphnia Magna) Life Cycle MATC 0.7 ppm
Mallard Reproduction NOEC 500 ppm
Bobwhite Reproduction NOEC 500 ppm

Dicamba (Sodium Salt): Not Available

Environmental Fate:

Dicamba (Sodium Salt): Hydrolysis: Resistant to hydrolysis
Photolysis: Not Available
Soil Half-life: 2 to 25 days

Primisulfuron: Not Available

SECTION 13 DISPOSAL CONSIDERATIONS

- a. **Waste disposal information:**
Do not re-use containers. Rinse thoroughly three times. Dispose of product containers, waste and residues in accordance with municipal and provincial regulations. Avoid contamination of any bodies of water. Waste shipments must be securely packed, properly labelled and documented.

SECTION 14 TRANSPORT INFORMATION

- a. **Shipping information such as shipping classification:**
TRANSPORTATION OF DANGEROUS GOODS CLASSIFICATION -
Proper Shipping Name: Not Regulated (Clear Language)

SECTION 15 REGULATORY INFORMATION

- a. **WHMIS classification for product:** exempt
b. **A statement that the MSDS has been prepared to meet WHMIS requirements, except for use of the 16 headings.**
This MSDS has been prepared in accordance with WHMIS requirements, but the data are presented under 16 headings.

SECTION 16 OTHER INFORMATION

The information and recommendations contained herein are based on information believed to be correct. However, no guarantee or warranty of any kind, expressed or implied is made with respect to the information provided herein.

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