

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Product Name:** Cool Power® Selective Herbicide**EPA Reg. No.:** 228-317**Synonyms:** Mixture of MCPA, Triclopyr and Dicamba**Product Type:** Herbicide**Company Name:** Nufarm Americas Inc.  
150 Harvester Drive, Suite 200  
Burr Ridge, IL 60527**Telephone Numbers:** For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,  
Call CHEMTREC Day or Night: 1-800-424-9300  
For Medical Emergencies Only, Call 1-877-325-1840**Date of Issue:** May 15, 2012**Supersedes:** March 16, 2007**Sections Revised:** 2, 7, 12, 13, 14**2. HAZARDS IDENTIFICATION****Emergency Overview:****Appearance and Odor:** Amber colored liquid with typical fatty ester odor.**Warning Statements:** Keep out of reach of children. CAUTION. Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.**Potential Health Effects:****Likely Routes of Exposure:** Inhalation, eye and skin contact.**Eye Contact:** Causes moderate eye irritation. Vapors and mist may cause irritation.**Skin Contact:** Moderately irritating. Overexposure by skin absorption may cause symptoms similar to those for ingestion.**Ingestion:** Harmful if swallowed. May cause nausea, vomiting, abdominal pain, decreased blood pressure, muscle weakness, muscle spasms. The petroleum hydrocarbon component, if aspirated into the respiratory system during ingestion or vomiting, may cause mild or severe pulmonary injury, possibly progressing to death.**Inhalation:** Low inhalation toxicity. May irritate the respiratory tract or cause dizziness. Overexposure to petroleum hydrocarbon component may cause irritation to respiratory tract, headaches, anaesthesia, drowsiness, unconsciousness and other central nervous system effects, possibly including death.**Medical Conditions Aggravated by Exposure:** Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

See Section 11: TOXICOLOGICAL INFORMATION for more information.

**Potential Environmental Effects:**

Drift or runoff may adversely affect non-target plants.

See Section 12: ECOLOGICAL INFORMATION for more information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

| COMPONENT  | CAS NO.    | % BY WEIGHT |
|--|------------|-------------|
| 2-methyl-4-chlorophenoxyacetic acid, isooctyl (2-ethylhexyl) ester | 29450-45-1 | 56.14       |
| Butoxyethanol Ester 3,5,6-Trichloro-2-Pyridinyloxyacetic Acid      | 64700-56-7 | 5.00        |
| Dicamba Acid   | 1918-00-9  | 3.60        |
| Other Ingredients Including:<br>Petroleum distillates              | 64742-47-8 | 35.26       |

### 4. FIRST AID MEASURES

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. 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.

**If on Skin:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**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.

**Note to Physician:** Contains petroleum distillates. May pose an aspiration pneumonia hazard.

### 5. FIRE FIGHTING MEASURES

**Flash Point:** >200° F (93° C) Tag Closed Cup

**Autoignition Temperature:** Not determined

**Flammability Limits:** Not determined

**Extinguishing Media:** Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

**Unusual Fire and Explosion Hazards:** If water is used to fight fire or cool containers, dike to prevent runoff contamination of municipal sewers and waterways.

**Hazardous Decomposition Materials (Under Fire Conditions):** May produce gases such as hydrogen chloride and oxides of nitrogen and carbon.

**National Fire Protection Association (NFPA) Hazard Rating:**

**Rating for this product: Health: 2    Flammability: 1    Reactivity: 0**

Hazards Scale: 0 = Minimal    1 = Slight    2 = Moderate    3 = Serious    4 = Severe

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

**Methods for Containment:** Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

**Methods for Cleanup and Disposal:** Pump any free liquid into an appropriate closed container. Collect washings for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

**Other Information:** Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

**7. HANDLING AND STORAGE**

**Handling:**

Avoid contact with skin, eyes or clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water. Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

**Storage:**

Always store pesticides in a secured warehouse or storage building. Containers should be opened in well-ventilated area. Keep container tightly sealed when not in use. Do not stack cardboard cases more than two pallets high. Do not store near open containers of fertilizer, seed or other pesticides. Do not contaminate water, food or feed by storage or disposal.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering Controls:**

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

**Personal Protective Equipment:**

**Eye/Face Protection:** To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin Protection:** To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves. An emergency shower or water supply should be readily accessible to the work area.

**Respiratory Protection:** Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

**General Hygiene Considerations:** Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

**Exposure Guidelines:**

| Component     | OSHA |      | ACGIH |      | Unit |
|---------------|------|------|-------|------|------|
|               | TWA  | STEL | TWA   | STEL |      |
| MCPA 2EHE     | NE   | NE   | NE    | NE   |      |
| Triclopyr BEE | NE   | NE   | NE    | NE   |      |
| Dicamba       | NE   | NE   | NE    | NE   |      |

NE = Not Established

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance and Odor:** Amber colored liquid with typical fatty ester odor.

|                          |                   |                             |                 |
|--------------------------|-------------------|-----------------------------|-----------------|
| <b>Boiling Point:</b>    | Not determined    | <b>Solubility in Water:</b> | Emulsifiable    |
| <b>Density:</b>          | 8.5 pounds/gallon | <b>Specific Gravity:</b>    | 1.027 @ 20°C    |
| <b>Evaporation Rate:</b> | Not determined    | <b>Vapor Density:</b>       | Not determined  |
| <b>Freezing Point:</b>   | Not determined    | <b>Vapor Pressure:</b>      | Not determined  |
| <b>pH:</b>               | Not determined    | <b>Viscosity:</b>           | 26.0 cps @ 25°C |

**Note:** Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

**10. STABILITY AND REACTIVITY**

**Chemical Stability:** This material is stable under normal handling and storage conditions.

**Conditions to Avoid:** Excessive heat. Do not store near heat or flame.

**Incompatible Materials:** Strong oxidizing agents: bases and acids.

**Hazardous Decomposition Products:** Under fire conditions may produce gases such as hydrogen chloride and oxides of nitrogen and carbon.

**Hazardous Reactions:** Hazardous polymerization will not occur.

**11. TOXICOLOGICAL INFORMATION****Toxicological Data:**

Data from laboratory studies on this product are summarized below:

**Oral:** Rat LD<sub>50</sub>: 1,000 mg/kg (female) and 1,231 mg/kg (male)

**Dermal:** Rabbit LD<sub>50</sub>: 3,535 mg/kg (female) and 3,969 mg/kg (male)

**Inhalation:** Rat 4-hr LC<sub>50</sub>: >3.59 mg/l (maximum attainable concentration)

**Eye Irritation:** Rabbit: Mildly irritating

**Skin Irritation:** Rabbit: Moderately irritating

**Skin Sensitization:** Not a contact sensitizer in guinea pigs following repeated skin exposure.

**Subchronic (Target Organ) Effects:** Repeated overexposure to phenoxy herbicides may cause effects to liver, kidneys, blood chemistry, and gross motor function. Rare cases of peripheral nerve damage have been reported, but extensive animal studies have failed to substantiate these observations, even at high doses for prolonged periods. Excessive exposure to Triclopyr may cause liver or kidney effects. Repeated overexposure to dicamba may cause liver changes or a decrease in body weight.

**Carcinogenicity / Chronic Health Effects:** The International Agency for Research on Cancer (IARC) lists exposure to chlorophenoxy herbicides as a class 2B carcinogen, the category for limited evidence for carcinogenicity in humans. However, newer rat and mouse lifetime feeding studies did not show carcinogenic potential for MCPA. Triclopyr did not cause cancer in laboratory studies. Dicamba did not cause cancer in long-term animal studies. The U.S. EPA has given triclopyr and dicamba a Class D classification (not classifiable as to human carcinogenicity).

**Reproductive Toxicity:** MCPA studies in laboratory animals have shown testicular effects and lower male fertility. For triclopyr, in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. Dicamba did not interfere with fertility in reproduction studies in laboratory animals.

**Developmental Toxicity:** MCPA studies in laboratory animals have shown decreased fetal body weights and delayed development in the offspring at doses toxic to mother animals. For triclopyr, birth defects are unlikely. Even exposures having an adverse effect on the mother should have no effect on the fetus. Animal tests with dicamba have not demonstrated developmental effects.

**Genotoxicity:** There have been some positive and some negative studies, but the weight of evidence is that MCPA is not mutagenic. Animal tests with triclopyr did not demonstrate mutagenic effects. Animal tests with dicamba did not demonstrate mutagenic effects.

**Assessment Carcinogenicity:**

This product contains substances that are considered to be probable or suspected human carcinogens as follows:

| Component                | Regulatory Agency Listing As Carcinogen |      |     |      |
|--------------------------|---|------|-----|------|
|                          | ACGIH                                   | IARC | NTP | OSHA |
| Chlorophenoxy Herbicides | No                                      | 2B   | No  | No   |

See Section 2: HAZARDS IDENTIFICATION for more information.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity:**

Data on MCPA 2EHE:

|   |           |   |            |
|---|-----------|---|------------|
| 96-hour LC <sub>50</sub> Bluegill:      | 3.9 mg/l  | Bobwhite Quail Dietary LC <sub>50</sub> :     | >5,620 ppm |
| 96-hour LC <sub>50</sub> Rainbow Trout: | 3.2 mg/l  | Mallard Duck 8-day Dietary LC <sub>50</sub> : | >5,620 ppm |
| 48-hour EC <sub>50</sub> Daphnia:       | 0.28 mg/l |   |            |

Data on Triclopyr BEE:

|   |           |   |            |
|---|-----------|---|------------|
| 96-hour LC <sub>50</sub> Bluegill:      | 0.36 mg/l | Bobwhite Quail Oral LD <sub>50</sub> :          | 735 mg/kg  |
| 96-hour LC <sub>50</sub> Rainbow Trout: | 0.65 mg/l | Bobwhite Quail 8-day Dietary LC <sub>50</sub> : | 5,401 ppm  |
| 48-hour EC <sub>50</sub> Daphnia:       | 10.1 mg/l | Mallard Duck 8-day Dietary LC <sub>50</sub> :   | >5,401 ppm |

Data on Dicamba:

|   |          |   |             |
|---|----------|---|-------------|
| 96-hour LC <sub>50</sub> Bluegill:      | 135 mg/l | Bobwhite Quail 8-day Dietary LC <sub>50</sub> : | >10,000 ppm |
| 96-hour LC <sub>50</sub> Rainbow Trout: | 135 mg/l | Mallard Duck 8-day Dietary LC <sub>50</sub> :   | >10,000 ppm |
| 48-hour EC <sub>50</sub> Daphnia:       | 110 mg/l | 48-hour Honey Bee Contact LD <sub>50</sub> :    | >100 µg/bee |

**Environmental Fate:**

MCPA 2EHE is rapidly de-esterified to parent MCPA acid in the environment. In soil, MCPA is microbially degraded with a typical half-life of approximately 10 to 14 days. In laboratory and field studies, Triclopyr BEE hydrolyzes to parent acid in the environment. Triclopyr is moderately persistent and mobile. In soil, the predominant degradation pathway is microbial and the average half-life is 30 days. Half-lives tend to be shorter in warm, moist soils with a high organic content. The predominant degradation pathway for triclopyr in water is photodegradation and the average half-life is one day. Initially, triclopyr BEE may bind to suspended organic particles or sediments in the water and while bound effectively lengthen the half-life in water. Dicamba has low bioaccumulation potential, is not persistent in soil, is highly mobile in soil and degrades rapidly.

**13. DISPOSAL CONSIDERATIONS**

**Residential:**

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container. **If empty:** place in trash or offer for recycling if available. **If partly filled:** call your local solid waste agency for disposal instructions. Never place unused product down any indoor (including toilet) or outdoor (including sewer) drain.

**Commercial:**

**Pesticide Disposal:** If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed labeled container for proper disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal: Nonrefillable Containers 5 Gallons or Less:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) 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 the 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

**Nonrefillable containers larger than 5 gallons:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable containers larger than 5 gallons:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### 14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this MSDS.

##### DOT

###### < 119 gallons per complete package

Non Regulated

###### ≥ 119 gallons per complete package

UN 3082, environmentally hazardous substance, liquid, n.o.s.  
(Triclopyr BEE), 9, III, Marine Pollutant

###### ≥ 3,228 gallons per completed package

UN 3082, environmentally hazardous substance, liquid, n.o.s.  
(Dicamba), 9, III, RQ, Marine Pollutant

##### IMDG

UN 3082, environmentally hazardous substance, liquid, n.o.s.  
(Triclopyr BEE), 9, III, Marine Pollutant

##### IATA

UN 3082, environmentally hazardous substance, liquid, n.o.s.  
(Triclopyr BEE), 9, III, Marine Pollutant

#### 15. REGULATORY INFORMATION

##### U.S. Federal Regulations:

**TSCA Inventory:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

**SARA Hazard Notification/Reporting:****Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):**

Immediate and Delayed

**Section 313 Toxic Chemical(s):**

Dicamba (CAS No. 1918-00-9), 3.60% by weight in product

**Reportable Quantity (RQ) under U.S. CERCLA:**

Dicamba (CAS No. 1918-00-9) 1,000 pounds

**RCRA Waste Code:**

None

**State Information:**

Other state regulations may apply. Check individual state requirements.

**California Proposition 65:** Not Listed

|                              |
|------------------------------|
| <b>16. OTHER INFORMATION</b> |
|------------------------------|

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

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