

## MATERIAL SAFETY DATA SHEET

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**COMPANY ADDRESS:**

Micro Flo Company LLC  
P.O. BOX 772099  
Memphis, TN 38117

**EMERGENCY TELEPHONE NUMBERS:**

(800)424-9300(CHEMTREC, transportation and spills)  
(800)900-4044(Poison Control Center, human health)  
(800)345-4735(ASPCA, animal health)

**PRODUCT NAME** : POAST PLUS®  
**CHEMICAL NAME** : 2-{1-(ethoxyimino)butyl}-5-{2-(ethylthio)propyl}-3-hydroxy-2-cyclohexen-1-one  
**FORMULA** : C(17)H(29)O(3)N S  
**CHEMICAL FAMILY** : Cyclohexanone  
**PRODUCT CODE** : EPA Reg. No. 7969-88-51036

### SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Sethoxydim	13.0	74051-80-2	Not Est.	Not Est.
Inerts, including:	87.0	N/A		
Naphthalene	1.3	91-20-3	10 ppm	10 ppm

### SECTION 3 - PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL DESCRIPTION:** Clear Liquid  
**ODOR:** Mild Aromatic  
**BOILING/MELTING POINT:** N/D  
**SPECIFIC GRAVITY:** 0.906 g/mL                      7.56 lb/gal  
**pH:** 3.21 - 3.5 (5% Aq.)  
**VAPOR PRESSURE mmHg @ 20 C:** 2  
**WATER SOLUBILITY:** Forms emulsion

### SECTION 4 - FIRE & EXPLOSION HAZARD

**FLASHPOINT (method):** 188 °F TCC  
**FLAMMABLE LIMITS (LFL-UFL):** Lower: 1.3 @ 70°C    Upper: 5.3 @ 103°C  
**FIRE AND EXPLOSION HAZARD:** None  
**EXTINGUISHING MEDIA:** Use water fog, foam, CO(2), or dry chemical extinguishing media.  
**FIRE FIGHTING EQUIPMENT:** Firefighters should be equipped with self-contained breathing apparatus and turnout gear.  
**NFPA 704 HAZARD CODES:**  
Health - 2  
Flammable - 2  
Instability - 1  
Other - n/a

**SECTION 5 - HEALTH DATA****ACUTE TOXICITY:**

Oral LD <sub>50</sub> (rat)	-	>2200 mg/kg
Dermal LD <sub>50</sub> (rat)	-	>2000 mg/kg
Inhalation LC <sub>50</sub> (rat)(4 hr)	-	>7.6 mg/L
Eye Irritation (rabbit)	-	Slightly irritating
Skin Irritation (rabbit)	-	Slightly irritating
Sensitizer (guinea pig)	-	Non-sensitizing

**EFFECTS OF OVEREXPOSURE:** Causes moderate eye injury. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Inhalation of the mists/vapors results in irritation to the nose, throat and lungs.

A component (petroleum solvent) of this formulation: Slightly irritating to the eyes. Prolonged contact with skin may irritate and cause dermatitis. May aggravate an existing skin condition. Inhalation of vapor/aerosol concentrations (>1000 ppm) are irritating to eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death. Small amounts aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possible progressing to death.

A component of this product contains naphthalene. Ingestion of naphthalene results in cramps, nausea, vomiting, and diarrhea; listlessness, bladder irritation and brownish urine. Inhalation of naphthalene may cause headache, confusion and excitement. Chronic overexposure to naphthalene may result in liver/kidney disorders. Hemolysis, anemia, fever, hemoglobulinuria and jaundice may also occur. Those with prior blood diseases may be more severely affected. A National Toxicology Program (NTP) report states that lifetime inhalation exposure to naphthalene resulted in increase in tumors of the nose of rats. In a previous NTP study, lifetime inhalation exposure to naphthalene increased lung tumors in female mice. The relevance of the rodent findings to humans is questionable.

**CHRONIC OVEREXPOSURE EFFECTS:** May result in liver/kidney disorders. Hemolysis, anemia, fever, hemoglobulinuria and jaundice may also occur. Those with prior blood diseases may be more severely affected.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE:** Acute overexposure to solvent naphtha vapors may cause central nervous system effects, including headache, dizziness, drowsiness, and confusion. Ingestion causes nausea, vomiting, blurred vision, and CNS disorder. Aspiration of the liquid into the lungs may result in chemical pneumonitis, which may be fatal. Prolonged or repeated skin contact may cause defatting and dermatitis.

The following special studies have been performed for the active ingredient:

Teratogenicity (rat and rabbit) - negative  
 Reproductive studies (2 generations rat) - negative  
 Skin sensitization (guinea pig) - negative

**FIRST AID PROCEDURES:**

IF SWALLOWED - Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor.

IF ON SKIN- 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 IN EYES- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first five minutes, then continue rinsing. 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 mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.

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

#### **SECTION 6 - STABILITY AND REACTIVITY**

**CHEMICAL STABILITY:** Stable

**CONDITIONS TO AVOID:** Heat, air, moisture

**CHEMICAL INCOMPATIBILITY:** Oxidizing agents

**HAZARDOUS DECOMPOSITION PRODUCTS:** SO(2), NOx during combustion

**HAZARDOUS POLYMERIZATION:** Does not occur

**CORROSIVE TO METAL:** No

**OXIDIZER:** No

#### **SECTION 7 - PERSONAL PROTECTION**

**PESTICIDE APPLICATORS & WORKERS:** 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 in 40 CFR Part 170.

**RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:**

**RESPIRATORY PROTECTION** - Supplied air respirators should be worn if large quantities of vapor are generated or prolonged exposure possible.

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

**PROTECTIVE CLOTHING** - Gloves and protective clothing to minimize skin contact.

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

#### **SECTION 8 - ECOLOGICAL INFORMATION**

**ENVIRONMENTAL TOXICITY:** (For active ingredient)

96 hour LC<sub>50</sub>, Bluegill - 265 mg/L

96 hour LC<sub>50</sub>, Trout - 170 mg/L

48 hour EC<sub>50</sub>, Daphnia - 78.1 mg/L

Mallard Acute LD<sub>50</sub> - >2510 mg/kg

Mallard Dietary LC<sub>50</sub> - >5620 ppm

Bobwhite Dietary LC<sub>50</sub> - >5620 ppm

Environmental toxicity data is not available for formulated product.

Active ingredient is not toxic to honeybees when applied topically up to 10 ug/bee or when sprayed on at a concentration simulating exposure to the maximum recommended use rate 2000 ppm.

**SARA TITLE III STATUS:**

Section 313: Listed

Fire: Yes

Sudden Pressure: No

Reactivity: No

Acute: Yes

Chronic: Yes

TPQ: 10,000 lbs

**SPILL AND LEAK PROCEDURE:** Recover material for use according to label whenever possible. Wear gloves, goggles and boots when cleaning up liquid spill. Cover contaminated area with absorbent material until dry. Spills which cannot be recovered should be contained, solidified and placed in suitable containers for disposal in a licensed facility.

**HAZARDOUS SUBSTANCE SUPERFUND:** Yes

**WASTE DISPOSAL METHOD:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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

### SECTION 9 - TRANSPORT INFORMATION

**DOT PROPER SHIPPING NAME:** BULK - Combustible Liquid      PACKAGE - None

**DOT HAZARD CLASSIFICATION:**

Primary - BULK - Combustible Liquid (120 gallons or more)  
PACKAGE - None

Secondary - None

**DOT LABELS REQUIRED:** None

**DOT PLACARDS REQUIRED:** Combustible

**BILL OF LADING DESCRIPTION:**

BULK - Combustible liquid, NOS (contains Petroleum Distillate), NA 1993, RQ  
(Naphthalene), ERG 128

PACKAGE - Compounds, Tree or Weed Killing NOIBN (Herbicides)

**CERCLA REPORTABLE QUANTITY:** 100 lbs (Naphthalene; RQ = 76,000 lbs. as product)

### SECTION 10 - ADDITIONAL INFORMATION

7969-88-51036

KEEP OUT OF REACH OF CHILDREN  
CAUTION

Complete Label and Directions For Use are attached to the product

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

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