

MATERIAL SAFETY DATA SHEET

CORNBELT TRIFLURALIN EC

Van Diest Supply Company
P.O. Box 610
Webster City, IA 50595
515-832-2366

FOR CHEMICAL EMERGENCY
SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT
CALL CHEMTREC - DAY OR NIGHT
1-800-424-9300

PRODUCT IDENTIFICATION

Common Name: Cornbelt Trifluralin EC
EPA Reg. No: 11773-17

INGREDIENTS

		<u>TLV (ACGIH)</u>
Trifluralin	43.0%	Not Established
Naphthalene	<7.0%	75 mg/m ³

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS (NFPA 704)

(4=Extreme; 3=High; 2=Moderate; 1=Slight; 0=Insignificant)

Health - 2

Fire - 1

Reactivity - 1

HEALTH HAZARDS

Inhalation: Single exposure to vapors is not likely to be hazardous. The LC₅₀ for rats is 5.59 mg/l (males) and >6.05 mg/L (females) for 4 hours.

Skin Contact: Short single exposure may cause slight skin irritation. May cause drying or flaking of skin. A single prolonged exposure is not likely to cause the material to be absorbed through the skin in harmful amounts. The LD₅₀ for skin absorption in rabbits is >5000 mg/kg. Has caused allergic skin reactions when tested in guinea pigs.

Eye Contact: May cause moderate eye irritation: Corneal injury is unlikely.

Ingestion: Single dose oral toxicity is low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. If aspirated (liquid enters the lung), may cause lung damage or even death due to chemical pneumonia. The oral LD₅₀ for rats is 3738 mg/kg.

Systemic Effects: For trifluralin, in animals, effects have been reported on the following organs: blood, kidney, and liver. For the solvent, in animals, effects have been reported on the following organs: lungs, stomach, thyroid gland, and urinary tract. Cataracts and other eye effects have been reported in humans repeatedly exposed to naphthalene vapor or dust.

Cancer Information: Contains naphthalene, which has caused cancer in some laboratory animals. A low incidence of urinary tract tumors was seen in one strain of rat in one chronic study of five 2-year studies on trifluralin conducted in rats; trifluralin is not anticipated to be a carcinogenic risk to man.

Teratology: Trifluralin did not cause birth defects; other fetal effects occurred only at doses toxic to the mother.

Reproductive Effects: Trifluralin did not interfere with reproduction in animal studies.

Mutagenicity: For the major component(s), in-vitro studies were negative. For the active ingredient, animal mutagenicity studies were predominantly negative. For the solvent, animal mutagenicity studies were negative.

FIRST AID

Eyes: Flush eyes with plenty of water.

Skin: Wash off in flowing water or shower.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Inhalation: Remove to fresh air; if effects occur, consult a physician.

Note to Physician: The decision of whether to induce vomiting or not should be made by an attending physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines: Aromatic 200 (petroleum solvent): none established. Supplier recommends a guideline of 100 ppm for the total product, which is a mixture of aromatic hydrocarbons.

Naphthalene: ACGIH TLV and OSHA PEL are 10 ppm TWA, 15 ppm STEL (note: naphthalene is a component of the solvent).

A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

Engineering Controls: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guideline.

Skin Protection: Use impervious gloves, arm covers and apron.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use a NIOSH approved air-purifying respirator.

Eye Protection: Use chemical goggles.

Applicators And All Other Handlers: Refer to the product label for more personal protective clothing and equipment.

MEDICAL CONDITIONS THAT MAY BE AGGRAVATED BY OVEREXPOSURE

Individuals with known hypersensitivity to trifluralin should not be exposed. Individuals with allergic history or pre-existing dermatitis should use extra care in handling trifluralin.

FIRE PROTECTION INFORMATION

Flash Point: 210°F (Pensky-Martens closed cup)

Autoignition Temperature: No Data

Flammable Limits (STP): LFL 1.8%, UFL 11.8%

Extinguishing Media: Dry chemical, carbon dioxide, water spray or foam

Hazardous Combustion Products: Thermal decomposition may release carbon dioxide, carbon monoxide, nitrogen oxide, and fluorinated hydrocarbons.

Fire Fighting Instructions: Dense smoke emitted when burned without sufficient oxygen. Keep people away. Isolate fire area and deny unnecessary entry. Closed containers may explode due to pressure build-up when subjected to excessive heat or intense fire. Containers exposed to intense heat from fires should be kept cool with water to prevent container weakening or rupture. Move container from fire area if this is possible without hazard. Contain firewater run-off if possible. Firewater run-off if not contained may cause environmental damage.

Protective Equipment: Wear positive pressure self-contained breathing apparatus and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves).

PHYSICAL DATA

Boiling Point (solvent): 450 to 527°F

Melting Point: N/A

Vapor Pressure (solvent): <1 mm HG @ 68°F

Vapor Density (solvent): 4.7 (air = 1)

Solubility in Water: Disperses to form an emulsion

Density: 9.34 lb/gal.

Percent Volatile by Volume: No Data

pH: 5.0 to 8.0

Appearance and Odor: Clear, deep orange liquid with an aromatic odor

REACTIVITY DATA

Stability: Stable under normal conditions

Incompatibility (Materials to Avoid): Avoid contact with strong oxidizers. Avoid freezing.

Hazardous Decomposition Products: Thermal decomposition may release carbon dioxide, carbon monoxide, nitrogen oxide, and fluorinated hydrocarbons.

Hazardous Polymerization: Will Not Occur

HANDLING AND STORAGE

Handling Precautions: Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Use only as directed on the label.

Storage Precautions: Store in original container only. Avoid freezing. Store above 40°F. If frozen, poor weed control may result. Do not store near heat or open flame.

SPILL, LEAK & DISPOSAL INFORMATION

Steps To Be Taken in Case Material is Released or Spilled:

Use non-reactive absorbent material to contain and clean up small spills. Report large spills to Van Diest Supply Company. Prohibit use of hot or sparking equipment in immediate area. Prevent runoff.

Disposal Method: Do not contaminate food, feed, or water by storage or disposal. Wastes are toxic. Improper disposal or excess waste, spray mixture, or rinsate is a violation of federal law. If wastes resulting from the use of this product cannot be disposed of according to label instructions, dispose of these wastes at an approved facility. Contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

ECOLOGICAL INFORMATION

Movement and Partitioning: *Based largely or completely on information for trifluralin:*

Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). Potential for mobility in soil is slight (Koc between 2000 and 5000).

Based largely or completely on information for Aromatic 200:

Bioconcentration potential is high (Boc is >3000 or Log Pow between 5 and 7).

Degradation and Persistence: *Based largely or completely on information for trifluralin:* Based on the stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Based largely or completely on information for Aromatic 200:

Biodegradation may occur slowly under aerobic conditions (in the presence of oxygen).

Ecotoxicology: *Based largely or completely on information for trifluralin:* Material is very highly toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ <0.1 mg/l in most sensitive species).

Based largely or completely on information for Aromatic 200: Material is highly toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ between 0.1 and 1 mg/l in most sensitive species). Material is practically non-toxic to birds on a dietary basis (LC₅₀ >5000 ppm). Material is practically non-toxic to birds on an acute basis (LC₅₀ >2000 ppm).

DOT INFORMATION

RQ, Environmentally Hazardous Substance, Liquid, N.O.S., (trifluralin 43.8%), 9, UN3082, PG III

SARA HAZARD NOTIFICATION/REPORTING

Product Description: Mixture; Liquid

Contains:

Trifluralin (CAS # 1582-09-8) – 43.0%

Naphthalene (CAS # 91-20-3) – 7.0%

Physical & Health Hazard Categories, 40CFR Part 370:

Immediate (Acute)

Delayed (Chronic)

Reportable Quantity: 23 lbs

ADDITIONAL INFORMATION

Prepared By: Van Diest Supply Co.

Date Prepared: 1-17-91

Date Revised: 8-2007

The information, data, and recommendations in this material safety data sheet relate only to the specific material designated herein and do not relate to use in combination with any other material or in any process. The information, data, and recommendations set forth herein are believed by Van Diest Supply Co. to be accurate. Van Diest Supply Co. makes no warranties, either expressed or implied, with respect thereto and assumes no liability in connection with any use of such information, data and recommendations.

Cornbelt is a Registered Trademark of Van Diest Supply Co.
Webster City, Iowa 50595