



# SAFETY DATA SHEET

## DREXEL TRIFLURALIN 4EC

### Section 1: Material Identification

**Product Name:** Drexel Trifluralin 4EC

**EPA Reg No.:** 19713-254

**CAS NO:** 1582-09-8

**Formula:**  $C_{13}H_{16}F_3N_3O_4$

**Company:** Drexel Chemical Company  
1700 Channel Avenue  
Memphis, TN 38106

**Synonyms:**  $\alpha,\alpha,\alpha$ -trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine

**Identifiers:**

- EINECS:** 216-428-8
- RTECS:** XU9275000
- DOT information:** See Section 14 for Transportation Information

**Emergency Telephone Number:**

CHEMTREC	Drexel Chemical Co.
Tel: 1-800-424-9300	901-774-4370

This product is an EPA FIFRA registered pesticide. Some of the classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Please see **Section 15: REGULATORY INFORMATION** for explanation.

### Section 2: Hazard Identification (As defined by the OSHA Hazard Communication Standard, 29)

**GHS classification:**

<b>Health Hazards:</b>	Aspiration hazard	Category 1
	Skin corrosion/irritation	Category 2
	Eye damage/irritation	Category 2B
	Sensitization – skin	Category 1
<b>Physical Hazards:</b>	Hazardous to the aquatic environment – acute hazard	Category 1
	Hazardous to the aquatic environment – chronic hazard	Category 1
	Flammable liquids	Category 3

**GHS label elements:**  
**Signal word:**

Danger



**Hazard statements:**

May be fatal if swallowed and enters airways.  
Causes skin irritation.  
Causes eye irritation.  
Very toxic to aquatic life.  
Very toxic to aquatic life with long lasting effects.  
Flammable liquid and vapor.  
May cause allergic skin reaction.

**Precautionary statements:**

**Prevention:**

Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face with soap and water before smoking or eating.  
Wash exposed skin thoroughly after handling. Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber (“nitrile” or “NBR”) or Polyvinyl chloride (“PVC” or “vinyl”).  
Wear eye protection/face protection (see Section 8).  
Avoid release to the environment.  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Keep containers tightly closed. Ground/Bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Use only non-sparking tools. Take precautionary measures against static discharge.  
Wear protective gloves/eye protection/face protection.  
Avoid breathing fume/mists/vapor/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.

**Response:**

**If swallowed:** Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.  
**If on skin:** Wash with plenty of water. **If skin irritation or rash occurs:** Get medical attention. Take off immediately all contaminated clothing and wash before reuse.  
**If in eyes:** Rinse eyes cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. **If irritations persists:** Get medical advice/attention.  
Collect spillage.  
**In case of fire:** Use foam, dry chemical, carbon dioxide or water fog to extinguish.

**Storage:**

Store locked up in well-ventilated place. Keep cool.

**Disposal:**

Dispose of contents/container to hazardous or special waste collection point.

### Section 3: Composition Information

<u>Components</u>	<u>CAS No.:</u>	<u>% By Wt.:</u>	<u>OSHA PEL:</u>	<u>ACGIH TLV:</u>
Active Ingredients:				
Trifluralin	1582-09-8	44.5%	N/Av	N/Av
Inert Ingredients:	N/A	55.5%	N/A	N/A

### Section 4: First-Aid Measures

**Eye Contact:** 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 eyes for at least 10 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

**If Swallowed:** Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Have product label with you when calling a poison control center or doctor.

**Skin Contact:** Immediately flush skin with water while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Destroy contaminated leather items such as shoes, belts, and watchbands.

**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 further treatment advice.

**Note to Physician:** No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

### Section 5: Fire Fighting Measures

**Fire Hazards:** Vapors will ignite when exposed to heat, flame and other sources of ignition. Vapors can travel to a source of ignition and flash back causing an explosion and fire. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Thermal decomposition during a fire can produce fumes and irritating gases.

**Flammability classification (OSHA 29 CFR 1910.1200):** Combustible

**Flash point:** 111°F

**Lower flammable limit (% by volume):** N/A

**Upper flammable limit (% by volume):** N/A

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Evacuate the area and fight the fire from upwind at a safe distance to avoid hazardous vapors or decomposition products. Dike and collect fire-extinguishing water to prevent environmental damage and excessive waste runoff.

**Firefighting media:** Use foam, dry chemical, carbon dioxide, or water fog when fighting fires involving this product. Do not use water jet, as this may spread burning material. Minimize the use of water to avoid environmental contamination. Contain all runoff.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Use full face shield

and operate in positive pressure mode. Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

**Hazardous Combustion Products:** Carbon oxides, nitrogen oxides, and irritating fumes and smoke.

**NFPA: Health: Flammability: Reactivity:**

2 2 1

(Rating: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Insignificant)

## Section 6: Accidental Release Measures

### Steps to be taken if Material is Released or Spilled:

- Contain spilled material if possible. Small spills: sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Drexel Chemical Co. for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

### Personal Precautions:

- Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls /Personal Protection.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

## Section 7: Handling and Storage

### KEEP OUT OF REACH OF CHILDREN

**Handling:** **General Handling:** Avoid contact with eyes, skin, and clothing. When using do not eat, drink, or smoke. Wash thoroughly after handling. Do not swallow. Avoid breathing dust. Use with adequate ventilation. Wear chemical protective equipment when handling. Keep away from heat, sparks and flame. See Section 8, Exposure Controls/Personal Protection.

**Storage:** Store in a cool, dry, well ventilated, and secure area designated specifically for pesticides and away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies.

## Section 8: Exposure Controls / Personal Protection

**Exposure Limits:** TLV: Trifluralin N/Av

### Personal Protection:

**Eye/Face Protection:** Wear safety glasses with side shields or chemical splash goggles to prevent liquid, mist or vapors from entering the eyes. If using a full face shield, always use safety glasses or goggles along with the face shield to ensure adequate protection of the eyes.

**Skin Protection:** If repeated or prolonged contact wear chemical resistant gloves. Applicators and handlers must wear long sleeved shirt, long pants and shoes with socks. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

**Hand protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber (“nitrile” or “NBR”) or Polyvinyl chloride (“PVC” or “vinyl”).

**Respiratory Protection:** Not normally required. Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. When handling in enclosed areas, when large quantities of mists are generated or prolonged exposure is possible in excess of the TLV, use a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

**Ingestion:** Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face before smoking or eating.

**Engineering Controls:**

Ventilate all transport vehicles prior to unloading. Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

## Section 9: Physical and Chemical Properties

<b>Physical State:</b>	Liquid
<b>Color:</b>	Orange
<b>Odor:</b>	Aromatic
<b>Flash Point:</b>	111°F
<b>Vapor Pressure (mmHg):</b>	N/A
<b>Boiling Point:</b>	N/A
<b>Vapor Density (air = 1):</b>	N/Av
<b>Density (H<sub>2</sub>O = 1):</b>	1.04 g/ml
<b>Freezing Point:</b>	N/A
<b>Solubility in water (wt. %):</b>	Emulsifies
<b>pH:</b>	5-7 (5% dilution)
<b>Viscosity:</b>	N/A
<b>Evaporation Rate:</b>	N/Av
<b>Explosivity:</b>	N/Av

## Section 10: Stability and Reactivity

**Stability/Instability:** Thermally stable at typical use temperatures and in closed containers.

**Conditions to Avoid:** Avoid open flame, high temperatures and static discharge.

**Incompatible Materials:** None known

**Hazardous Polymerization:** Will not occur

**Thermal Decomposition:** Decomposition products can include and are not limited to: Carbon oxides, nitrogen oxides, fluorinated compounds and toxic fumes.

## Section 11: Toxicological Information

Results from studies using a similar, but not identical, formulation.

### Acute Toxicity:

#### Ingestion:

- Oral, LD50, (rat): 3738 mg/kg

#### Dermal:

- Dermal, LD50, (rabbit): >2,000 mg/kg

#### Inhalation:

- Inhalation, LC50, 4 h, (rat): >5.0 mg/l

#### Eye Irritation (rabbit):

- Moderate irritation

#### Skin Irritation (rabbit):

- Moderately irritating

#### Sensitization Skin (Guinea Pig):

- May cause allergic reaction

### Chronic Toxicity and Carcinogenicity:

- Not classified as carcinogenic by OSHA, IARC, ACGIH, or NTP

**Teratogenicity, mutagenicity, and other reproductive effects:** None known

## Section 12: Ecological Information

Data for the active ingredient Trifluralin:

### ENVIRONMENTAL FATE:

#### Persistence and Degradability:

- Environmentally persistent, but low mobility due to high affinity for soils and low solubility in water.

#### Aquatic Toxicity:

- Very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in most sensitive species).

#### Bird Toxicity:

- Mallard Duck, 5-day dietary LC50: >2000 mg/kg

- Bobwhite quail, 5-day dietary LC50: >2000 mg/kg

## Section 13: Disposal Considerations

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

## Section 14: Transport Information

### DOT:

- **For quantities of < 2.5 gallons, for ground shipment:** Non-regulated
- **For quantities of > 2.5 gallons:** UN 3082, Environmentally hazardous substance, liquid, n.o.s., (Trifluralin), 9, PG-III, RQ 10 lbs.

**ICAO/IATA:** Same as above

**IMDG:** Same as above

**Freight Description:** Weed/tree killing compound, N.O.I.

**ERG Guide No.:** 171

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## Section 15: Regulatory Information

### OSHA:

- **This product is hazardous according to the OSHA Hazard Communication Standard 29 CFR 1910.1200.**
- **EPA FIFRA INFORMATION** This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemical. The hazard information required on the pesticide label is listed out below. The pesticide label also includes other important information, including directions for use.
- **EPA/CERCLA Reportable Quantity:** 10 lbs.

### SARA/TITLE III:

- **Sec. 302. Extremely Hazardous Substance Notification:** This material is not known to contain any Extremely Hazardous Substances.
- **Sec. 311/312. Hazard Categories:** Immediate health hazard  
Delayed health hazard

- **Sec. 313. Toxic Chemical(s):** Trifluralin (CAS 1582-09-8) 44.5%
- **RCRA Waste Code:** Not listed

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):**

- This product is not listed.

**Toxic Substances Control Act (TSCA):**

- All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

## Section 16: Other Information

*Drexel Chemical Company recommends that each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown below. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.*

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