

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

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

- 1.1 **PRODUCT IDENTIFIER:**  
**TRADE NAME:** DFT 6 EC
- 1.2 **RECOMMENDED USE:** COTTON DEFOLIANT
- 1.3 **SUPPLIER DETAILS:**  
 LOVELAND PRODUCTS, INC.  
 P.O. Box 1286 • Greeley, CO 80632-1286
- 1.4 **24 Hour Emergency Phone:** 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565  
**U.S. Coast Guard National Response Center:** 1-800-424-8802

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification according to 29 CFR 1910.1200**

Combustible liquid	Category 4	H227
Eye Damage/Irritation	Category 1	H318
Acute Toxicity – Oral	Category 4	H302
Acute Toxicity – Inhalation	Category 4	H332
Skin Corrosion/Irritation	Category 1B	H314
Carcinogenicity	Category 2	H351

**2.2 Label elements**



Signal word: DANGER

Hazard Statement: H227 – Combustible liquid.  
 H318 – Causes serious eye damage.  
 H302 – Harmful if swallowed.  
 H332 – Harmful if inhaled.  
 H314 – Causes severe skin burns and eye damage.  
 H351 – Suspected of causing cancer.  
 H402 – Harmful to aquatic life.  
 H412 – Harmful to aquatic life with long lasting effects.

Precautionary Statement: P210 – Keep away from heat/sparks/open flames/hot surfaces – No smoking.  
 P280 – Wear protective gloves/protective clothing/eye protection/face protection.  
 P264 – Wash hands and face thoroughly after handling.

(Prevention): P270 – Do not eat, drink or smoke when using this product.  
 P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P271 – Use only outdoors or in a well-ventilated area.  
 P260 – Do not breathe dusts/fume/gas/mist/vapors/spray.

Precautionary Statement: P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

(Response): P310 – Immediately call a POISON CENTER or doctor/physician.  
 P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P330+P331 – Rinse mouth. Do NOT induce vomiting.  
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P312 – Call a POISON CENTER or doctor/physician if you feel unwell.  
 P321 – Specific treatment (see Note to Physician on the product label).

Precautionary Statement: (Storage): P405 – Store locked up.

Precautionary Statement: (Disposal): P501 – Dispose of contents/container in accordance with local, state, and federal regulations.



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## 2.3 Other hazards

None known

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## 3. COMPOSITION, INFORMATION ON INGREDIENTS

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### 3.1 Substances

### 3.2 Mixtures

#### Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Concentration [%]
Tribufos	78-48-1	70.50
Naphthalene	91-20-3	1 - < 3.0
1,3-Diethyl benzene	141-93-5	< 0.3
*Other ingredients	n/a	Balance

\*Ingredients not specifically listed are non-hazardous or are to be considered proprietary or confidential business information per 29 CFR 1910.1200(i)

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## 4. FIRST AID MEASURES

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### 4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

- If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 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 on skin or clothing:** 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 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 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.

### 4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Eyes: Causes serious eye damage.  
Oral: Harmful if swallowed.

### 4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatically. Symptoms may be delayed.  
**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565**  
Take container, label or product name with you when seeking medical attention.

**NOTES TO PHYSICIAN:** This product inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system and the somatic motor nerves. Poisoning with this product also results in cardiovascular and respiratory symptoms which must be treated as separate pathological entities apart from the cholinergic effects. Use atropine sulfate to reverse cholinergic symptoms; maintain a systematic, symptomatic treatment of the cardiovascular and respiratory effects, even though the cholinergic symptoms have ceased. Do not give central nervous system depressants. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. The use of oxygen is recommended in case of respiratory distress. Probable mucosal damage may contraindicate the use of gastric lavage. May pose an aspiration pneumonia hazard. Contains petroleum distillate.



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## 5. FIRE FIGHTING MEASURES

### 5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO<sub>2</sub>), alcohol foam, foam, water spray or fog.

### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: Oxides of carbon and other unknown materials may be formed in a fire situation.

### 5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of vapors and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

### 6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

### 6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to Remove residual contamination.

Never return spills to original containers for re-use.

## 7. HANDLING AND STORAGE

### 7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### 7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store in original container only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with vermiculite, earth, or synthetic absorbent. Combustible. Do not store near heat or open flame.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 CONTROL PARAMETERS:

#### OCCUPATIONAL EXPOSURE LIMITS

##### U.S. Workplace Exposure Level (ACGIH) TLVs

Components	Type	Value
Naphthalene	TLV	10 ppm

##### U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
Naphthalene	TLV	10 ppm

#### Biological limit values

##### ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		



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## 8.2 EXPOSURE CONTROLS:

### Engineering Measures

Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

### Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.  
Skin Protection: Long-sleeved shirt and long pants. Chemical-resistant gloves, such as polyethylene or polyvinylchloride. Shoes plus socks.  
Respiratory Protection: In case of inadequate ventilation or risk of inhalation of mists or vapors, use suitable respiratory equipment such as MSHA/NIOSH TC-84A with NIOSH equipped N, R, or P class filter media. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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9.1 APPEARANCE : Liquid  
ODOR: Pungent.  
ODOR THRESHOLD: No data available.  
COLOR: Amber.  
pH: No data available.  
MELTING POINT / FREEZING POINT: -31 °F (-35 °C) / < -20 °F (< -29 °C)  
BOILING POINT: > 302 °F (> 150 °C)  
FLASH POINT: 184 °F (84 °C) Setflash.  
FLAMMABILITY (solid, gas): Not applicable.  
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.  
VAPOR PRESSURE:  $1.70E^{-6}$  mmHg @ 20 °C (Tribufos).  
SOLUBILITY: Emulsifies.  
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: (log Kow): Naphthalene 3.3.  
AUTO-IGNITION TEMPERATURE: 830 °F (443 °C).  
DECOMPOSITION TEMPERATURE: No data available.  
VISCOSITY: (kinematic): No data available  
SPECIFIC GRAVITY (Water = 1): 1.018 g/ml  
DENSITY: 8.50 lbs./gal / 1.02 kg/L

Note: These physical data are typical values based on material tested but may vary from sample to sample.  
Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

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## 10. STABILITY AND REACTIVITY

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### 10.1 REACTIVITY

Stable

### 10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

### 10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No data available. Will not polymerize.

### 10.4 CONDITIONS TO AVOID

Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flashpoint.

### 10.5 INCOMPATIBLE MATERIALS

Strong acids. Strong bases.

### 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May release fumes of hydrogen chloride, oxides of carbon, oxides of phosphorous, and other unknown organic compounds in a fire situation.



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## 11 TOXICOLOGICAL INFORMATION

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### 11.3 LIKELY ROUTES OF EXPOSURE

Eye contact. Inhalation. Skin contact. Ingestion.

LC<sub>50</sub> (male rat): >3.55 mg/L (4 HR)

LD<sub>50</sub> Oral (male rat): 570 mg/kg

LD<sub>50</sub> Dermal (rat): > 2,000 mg/kg

Acute Toxicity Estimates: Causes severe skin burns and eye damage.

Skin Irritation (rabbit): Corrosive to skin.

Eye Irritation (rabbit): Corrosive; causes irreversible eye damage.

Specific Target Organ Toxicity: No data available.

Aspiration: No data available

Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenicity: IARC Group 2B (possibly carcinogenic to humans).

Germ Cell Mutagenicity: No data available

Interactive Effects: None known

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## 12 ECOLOGICAL INFORMATION

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### 12.3 ECOTOXICITY

The product may be toxic to fish and aquatic invertebrates. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Information below is based on the technical ingredient 2,4-D acid.

#### Ecotoxicological Data

	Species	Test Results
Naphthalene	Oncorhynchus gorbuscha	1.11 – 1.68 mg/L – 96-hour LC <sub>50</sub>
	Daphnia magna	1.09 – 3.4 mg/L – 48-hour EC <sub>50</sub>

Drift or runoff may adversely affect non-target plants.

Do not apply directly to water.

Do not contaminate water when disposing of equipment wash water.

Do not apply when weather conditions favor drift from target area.

### 12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available

### 12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available

### 12.4 MOBILITY IN SOIL

No data available.

### 12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

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## 13 DISPOSAL CONSIDERATIONS

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### 13.1 WASTE TREATMENT METHODS

Wastes may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at <http://www.acrecycle.org/>. Do not contaminate water, food or feed by storage or disposal.

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## 14 TRANSPORT INFORMATION

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### 14.3 LAND TRANSPORT

DOT Shipping Description: 119 GALLONS AND LESS: NOT REGULATED BY DOT

DOT Shipping Description: GREATER THAN 119 GALLONS: NA1993, COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM DISTILLATES), III ERG GUIDE 128

U.S. Surface Freight Classification: DEFOLIANT, PLANT, NOI (NMFC 56320; CLASS: 60)



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## 15 REGULATORY INFORMATION

### 15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

#### NFPA & HMIS Hazard Ratings:

NFPA		HMIS	
1 Health	0 Least	1 Health	
1 Flammability	1 Slight	1 Flammability	
0 Instability	2 Moderate	0 Reactivity	
	3 High	H PPE	
	4 Severe		

#### SARA Hazard Notification/Reporting

SARA Title III Hazard Category:	Immediate	<u>Y</u>	Fire	<u>Y</u>	Sudden Release of Pressure	<u>N</u>
	Delayed	<u>Y</u>	Reactive	<u>N</u>		

Reportable Quantity (RQ) under U.S. CERCLA: Naphthalene (CAS: 91-20-3) 100 pounds.

SARA, Title III, Section 313: Tribufos (CAS: 78-48-8); Naphthalene (CAS: 91-20-3)

RCRA Waste Code: U165 (Naphthalene)

CA Proposition 65: **WARNING:** This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

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 chemicals. Following is the hazard information as required on the pesticide label:

#### DANGER

- Corrosive.
- Causes skin burns and irreversible eye damage.
- May be fatal if absorbed through skin or swallowed.
- Harmful if inhaled.
- Do not get in eyes, on skin, or on clothing.
- Avoid breathing vapor or spray mist.

## 16 OTHER INFORMATION

SDS STATUS: Section 2 revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-867

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