

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**COMPANY ADDRESS:**

RedEagle International LLC  
5143 S. Lakeland Drive, Suite 4  
Lakeland, FL 33813

**EMERGENCY TELEPHONE NUMBERS:**

(800) 424-9300 (CHEMTREC, transportation and spills)  
(800) 222-1222 American Association of Poison Control Centers

**PRODUCT NAME:**

TRIBUFOS 6

**CHEMICAL NAME:**

S, S, S-Tri-butylphosphorotrithioate

**PRODUCT USE:**

Defoliant (cotton)

**PRODUCT CODE:**

EPA Reg. No. 85678-15

## SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200

Clear to yellowish liquid with pungent odor

**HEALTH HAZARDS: DANGER – PELIGRO.** CORROSIVE. Causes irreversible and severe eye damage. Causes severe skin burns. May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Suspected of causing cancer. Harmful to aquatic life and effects may be long lasting. Combustible liquid.

**PHYSICAL HAZARDS:** Corrosive to metals.

**ENVIRONMENTAL HAZARDS:** Avoid contaminating water sources.

**HAZARD STATEMENTS:**

Corrosive. Will cause eye burns and permanent tissue damage. Substance is harmful if absorbed through the skin. Large exposures may be fatal - Can cause chemical burn. Spray mist concentrations may be harmful. High concentrations may be fatal. Harmful if swallowed. Corrosive may cause severe and permanent damage to mouth, throat, and stomach. Symptoms of overexposure may include severe irritation of the mouth, throat, esophagus and stomach with severe abdominal and chest pain. Product will emit toxic fumes of hydrogen chloride, phosphorous oxides, and carbon oxides when burned, including carbon monoxide. Unburned product vapors are also hazardous.

## SECTION 3 – COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS No.
S, S, S-Tri-butylphosphorotrithioate	70.5	
Other ingredients (contains*)	29.5	
Naphthalene*	1 - < 5	141-93-5

<b>SECTION 4 - FIRST AID MEASURES</b>
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**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. Do not induce vomiting unless told to do so by poison control center or doctor. Do not give any liquid to a person. 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. Do not use mouth-to-mouth method if product was inhaled. Call a poison control center or doctor for further treatment advice.

**NOTE TO PHYSICIAN:**

**Hazards:** This product is a cholinesterase inhibiting organophosphorous pesticide. Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.

**Treatment:** The product inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system, and the somatic motor nerves. Administer atropine sulphate as antidote. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 24-48 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

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

<b>SECTION 5 - FIRE FIGHTING MEASURES</b>
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**NFPA (National Fire Protection Association) HAZARD RATINGS**

HEALTH	FLAMMABILITY	REACTIVITY
3	2	0

4=Severe    3=Serious    2=Moderate    1=Slight    0=Minimal

**FLASHPOINT:** 84°C (184°F).

**EXTINGUISHING MEDIA:** Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

**FIRE AND EXPLOSION HAZARD** Material is combustible. When heated, explosive vapor/air mixtures may form. Product will emit toxic fumes when burned, including carbon monoxide. Unburned product vapors are also hazardous.

**FIRE FIGHTING INSTRUCTIONS:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Evacuate area and fight fire from a safe distance. Dike and collect water used to fight fire to prevent environmental damage due to run off.

**FIRE FIGHTING EQUIPMENT:** Full firefighting turn-out gear (Bunker gear) including self-contained breathing apparatus with full face piece.

**HAZARDOUS COMBUSTION PRODUCTS:** Product will emit toxic fumes when burned, including carbon monoxide. Unburned product vapors are also hazardous.

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

**IN CASE OF SPILLS OR LEAKS:** Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of soil, surface water, or ground water. Clean up spills immediately. Observe precautions in Section 8 of this document. Keep unnecessary and unprotected personnel from entering.

**SMALL SPILL:** Absorb small spills with sand, vermiculite, or other absorbent inert ingredients. Place material in a container for proper disposal.

**LARGE SPILL:** Dike spill using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse or disposal. Allow absorbed material to solidify and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent for disposal. Minimize use of water to prevent environmental contamination.

**CAUTION:** Minimize use of water to prevent runoff into municipal sewers or other open bodies of water and minimize environmental contamination. Be sure to isolate any contaminated water. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

### SECTION 7 - HANDLING AND STORAGE

#### KEEP OUT OF REACH OF CHILDREN!

**HANDLING:** Use only in a well-ventilated area. Do not inhale mists or vapors. Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing if pesticide gets inside clothing. Then wash thoroughly and put on clean clothing. Remove PPE after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Do not reuse container.

**STORAGE:** Keep pesticide in original container. Keep container tightly closed when not in use. Store in a locked storage area. Avoid cross contamination with other pesticides or fertilizers during handling and storage. Store in a cool, dry place. Do not contaminate water, feed, or food by storage and disposal. Do not store diluted spray. Do not transport or store below -18°C / -0°F. Do not transport or store above 38°C / 100°F. The 30-day storage temperature average must not exceed the recommended maximum

### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### EXPOSURE LIMITS:

COMPONENT	OSHA PEL	ACIGH TLV
Naphthalene	10 ppm TWA	10 ppm TWA

**ENGINEERING CONTROLS:** Do not breathe vapors or mists. If specific use conditions create an environment for excessive exposure, use proper ventilation. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

#### PERSONAL PROTECTIVE EQUIPMENT:

**EYE PROTECTION:** Protective eyewear. An emergency eyewash or water supply should be readily accessible to work area.

**SKIN PROTECTION:** Wear coveralls over long-sleeved shirt and long pants, chemical resistant shoes plus socks, and chemical-resistant gloves made of any waterproof material. Wear a chemical resistant apron when cleaning equipment, mixing, or loading. For overhead exposure wear chemical-resistant headgear. An emergency shower or water supply should be readily accessible to work area.

**RESPIRATOR:** Normally not required. If vapors or mists may exceed acceptable levels, wear NIOSH approved air-purifying respirator approved for pesticides.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:** 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 outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear to yellowish liquid
<b>Odor:</b>	Pungent
<b>pH:</b>	No data available
<b>Boiling Point:</b>	> 149 °C (> 300 °F)
<b>Freezing Point:</b>	< - 29 °C (< - 20 °F)
<b>Flash Point:</b>	84°C (184°F).
<b>Evaporation Rate:</b>	No data available
<b>Flammability:</b>	No data available
<b>Flammability Limits:</b>	No data available
<b>Vapor Pressure:</b>	1.7 x 10 <sup>- 6</sup> mm Hg @ 20°C (for Tribufos)
<b>Vapor Density:</b>	Heavier than air
<b>Relative Density:</b>	1.02-1.03 (8.50-8.60 lb/gal)
<b>Solubility: Partition</b>	Emulsifies
<b>Coefficient:</b>	No data available
<b>Auto-Ignition Temperature:</b>	443 °C (> 830 °F)
<b>Decomposition Temperature:</b>	No data available
<b>Viscosity:</b>	No data available
<b>Specific Gravity:</b>	1.018 @ 20°C/20°C
<b>Bulk Density:</b>	8.50 lb/gal

### SECTION 10 - STABILITY AND REACTIVITY

<b>CHEMICAL STABILITY:</b>	Stable under normal handling and storage conditions.
<b>HAZARDOUS REACTION/POLYMERIZATION:</b>	Product will not undergo polymerization.
<b>CONDITIONS TO AVOID:</b>	Heat, flames, sparks and elevated temperatures.
<b>INCOMPATIBLE MATERIALS:</b>	Avoid strong oxidizers, strong acids, strong bases, heat, and sources of ignition.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Heating product to decomposition will cause emission of acrid smoke and fumes of hydrogen chloride, phosphorous oxides, and carbon oxides.
<b>HAZARDOUS POLYMERIZATION:</b>	Will not occur.

### SECTION 11 - TOXICOLOGICAL INFORMATION

<b>ACUTE TOXICITY:</b>	
Oral LD5s (rat):	> 348 mg/kg
Dermal LD <sub>50</sub> (rat):	> 2,000 mg/kg
Inhalation LC <sub>50</sub> (rat):	> 2.3 mg/l
Eye irritation (rabbit):	Corrosive
Skin irritation (rabbit):	Corrosive
Sensitization (guinea pig):	Not a contact sensitizer
<b>CARCINOGEN STATUS:</b>	
OSHA:	Not listed
NTP:	Not listed
IARC:	Not listed

**MUTAGENICITY:** No evidence of effects from Tribufos.

**GENOTOXICITY:** No evidence of effects from Tribufos.

**SUBCHRONIC (TARGET ORGAN) EFFECTS:** Not classified

**CARCINOGENICITY/CHRONIC HEALTH EFFECTS:** EPA has classified Tribufos as an unlikely human carcinogen at low doses. IARC found there was sufficient evidence that both Tribufos and Naphthalene cause cancer in animals to list them as a possible carcinogen for people (Group 2B).

**REPRODUCTIVE TOXICITY:** There was evidence of reproductive effects in the rat at the highest dose level of Tribufos tested, in conjunction with maternal toxicity.

**DEVELOPMENTAL TOXICITY:** No effects were observed from

**SECTION 12 - ECOLOGICAL INFORMATION**

**ENVIRONMENTAL SUMMARY:** 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 apply where runoff might occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate.

**FATE:** No data available.

**ENVIRONMENTAL HAZARDS:** Harmful to aquatic life with long lasting effects.

**FISH TOXICITY:** (technical)

48 hour EC<sub>50</sub>, Pink salmon – 1.09 – 3.4 mg/L

96 hour LC<sub>50</sub>, Water flea – 1.1 – 1.68 mg/L

**SECTION 13 - DISPOSAL CONSIDERATIONS**

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Pesticide waste may be acutely hazardous. Improper disposal is a violation of Federal law. If these waste cannot be disposed of according to label instructions, contact your state Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office.

**CONTAINER DISPOSAL:** Non-refillable container: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Refer to the product label for additional and complete Container Handling instructions.

**SECTION 14 - TRANSPORT INFORMATION**

**DOT SHIPPING DESCRIPTION:** UN 3018, Organophosphorous pesticides, liquid, toxic (Tribufos), 6.1, III, RQ, ERG 153

<b>TRANSPORT HAZARD CLASS:</b>	6.1
<b>UN NUMBER:</b>	3018
<b>DOT PACKING GROUP:</b>	III
<b>DOT EMERGENCY RESPONSE GUIDE:</b>	153

**SECTION 15 - REGULATORY INFORMATION**

**CERCLA REPORTABLE QUANTITY:** 100 lb Naphthalene (235 gallons of product)

**SARA TITLE III**

**311/312 HAZARD CATEGORY:** Immediate health (acute), Delayed health (chronic)

**313 TOXIC CHEMICALS:** Tribufos (S, S, S-Tri-butylphosphorotrithioate) and Naphthalene (CAS # 91-20-3)

**CALIFORNIA PROP 65: WARNING:** This product contains Naphthalene, a chemical known to the State of California to cause cancer.

**TSCA:** Exempted - solely for FIFRA regulated use.

**RCRA CLASSIFICATION:** Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing this product or derived from the product should be classified as a hazardous waste.

<b>SECTION 16 - OTHER INFORMATION</b>
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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS 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. This data sheet is not a guarantee of safety. Users are responsible for insuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.