



# MATERIAL SAFETY DATA SHEET

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## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** ORTHO® Orthenex® Insect & Disease Control Concentrate  
**Description:** Insecticide, Fungicide

**Company**  
The Scotts Company  
14111 Scottslawn Road  
Marysville, OH 43041

**24-HOUR EMERGENCY TELEPHONE NUMBERS:**  
CHEMTREC (U.S.): 1-800-424-9300  
CHEMTREC (International): 1-703-527-3887  
Non-Emergency Calls: 1-937-644-0011

**EPA Registration No.:** 239-2594  
**Formula No.:** S5617

## 2. HAZARDS IDENTIFICATION

### Labelling

**Signal word:** DANGER.

### Precautionary Statement

Causes irreversible eye damage. Skin irritation. Do not get in eyes. Wear goggles. May be harm if swallowed or absorbed through the skin. Avoid contact with eyes, skin, and clothing. Wash with soap and water after handling. Wear long pants, long-sleeved shirt, socks, shoes, and chemical resistant gloves when handling or applying product. Remove contaminated clothing and wash before reuse. Keep out of reach of children.

### Potential health effects

**Eye contact:** Risk of serious damage to eyes.  
**Skin contact:** Contact causes severe skin irritation and possible burns.  
**Ingestion:** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Also toxic if swallowed.  
**Inhalation:** May cause irritation of respiratory tract.

**Aggravated Medical Conditions:** Inhalation may aggravate asthma.  
**Properties affecting health:** Cholinesterase inhibition.  
**Principle routes of exposure:** Skin, Eyes, Inhalation  
**Target organ effects:** Irritation. Nervous system.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No	Weight %
Hexakis (Fenbutatin-Oxide)	13356-08-6	0.75
Triforine	26644-46-2	3.25
Acephate	30560-19-1	4
Inert Ingredients	PROPRIETARY	92

## 4. FIRST AID MEASURES

**Eye contact:** Hold eye open and rins 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

**Skin contact:** 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

**Ingestion:** 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person

**Inhalation:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice

**Notes to physician:** Contains a cholinesterase inhibitor; atropine sulfate and protopam (2-PAM) are antidotal, but 2-PAM should not be used alone.

**Protection of first-aiders:** Wear personal protective equipment. Do not breathe vapors or spray mist. Avoid contact with skin and eyes. Remove all sources of ignition.

**5. FIRE-FIGHTING MEASURES**

**Flammable properties:** Flammable liquid.  
**Suitable extinguishing media:** Water spray, carbon dioxide, dry chemical, chemical foam.  
**Explosion potential:** May form explosive vapor-air mixtures above flash point.  
**Explosive properties:** Explosive vapor could form.  
**Hazardous combustion products:** Toxic fumes may be produced.  
**Specific hazards:** Risk of ignition.  
**Fire fighting procedures:** Select appropriate method to surround and extinguish fire. Flood with water to cool containers.  
**Special protective equipment for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Wear personal protective equipment  
**Environmental precautions:** Prevent product from entering drains  
**Methods for containment:** Extinguish all ignition sources. Control spill with dykes and absorb with inert absorbant material. Cover or soil-incorporate spills.  
**Methods for cleaning up:** Detergent and water.

**7. HANDLING AND STORAGE**

**Handling:** Do not use near an ignition source. Avoid container breakage. Avoid inhalation or contact with skin, eyes, or clothing. Wear chemical resistant gloves, long pants, and long-sleeved shirt when applying. Do not contaminate water sources when disposing of equipment wash waters.  
**Storage:** Store in original container in a safe place. Do not put concentrate or dilute into food or drink containers. Store away from heat or open flame. Do not store diluted spray. Keep out of the reach of children.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Components	ACGIH:	OSHA:
Acephate	Not Listed	Not Listed
Triforine	Not Listed	Not Listed
Hexakis (Fenbutatin-Oxide)	Not Listed	Not Listed

**Engineering controls** Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard

**Personal Protective Equipment**

**Eye/face protection:** Safety glasses with side shields or goggles.  
**Skin and body protection:** Wear suitable protective clothing if contact is anticipated during manufacturing. Chemical resistant gloves.  
**Respiratory protection:** If airborne levels are high or product does not remain intact, use a combination of engineering controls (e.g. ventilation) and personal protection (e.g. NIOSH/MSHA approved respirator for dusts, mists, and fumes).

**General hygiene considerations:** Wash hands before breaks and immediately after handling the product.  
**Re-entry Interval:** When dry.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b> Liquid	<b>Appearance:</b> Clear
<b>Color:</b> Amber	<b>Solubility:</b> Miscible
<b>Specific gravity:</b> 0.96 g/cc	<b>Flash point:</b> 121° F
<b>Method:</b> TAG CC	

**10. STABILITY AND REACTIVITY**

**Chemically Stable:** Yes  
**Conditions to avoid:** Keep away from open flames, hot surfaces and sources of ignition.  
**Materials to avoid:** Oxidising agents.  
**Hazardous decomposition products:** Toxic fumes and gases may be generated.

**Possibility of hazardous reactions:** Poses little or no immediate hazard.

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**LD50/oral:** 1.06 g/kg, rat  
**LC50/inhalation:** >5.4 mg/L, (vapor), rat  
**Eye effects:** Severe eye irritation, rabbit  
**Skin effects:** Severe skin irritation, rabbit  
**Sensitization:** No sensitization, guinea pig

**Chronic toxicity**

**Carcinogenic effects:** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Components	NTP:	IARC:	OSHA:
Acephate	Not listed	Not listed	Not listed
Triforine	Not listed	Not listed	Not listed
Hexakis (Fenbutatin-Oxide)	Not listed	Not listed	Not listed

**Ingestion:** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea . Toxic if swallowed.  
**Inhalation:** May cause irritation of respiratory tract. Organophosphorous pesticide : cholinesterase inhibitor, neurologic and respiratory toxicity.  
**Target organ effects:** Irritation. Nervous system.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity effects:** This pesticide is toxic to birds, mammals, fish and aquatic invertebrates. Highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply or allow drift to blooming crops or weeds if bees are visiting treatment area.  
**Persistence and degradability:** Inherently biodegradable.  
**Bioaccumulative potential:** Does not bioaccumulate.  
**Mobility:** Water contaminating.  
**Aquatic toxicity:** Toxic to fish and other water organisms.  
**Additional ecological information:** Do not contaminate water sources when disposing of equipment washwaters. Do not apply directly to lakes, streams, or ponds.

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Methods:** If partially filled, call the local solid waste agency or 1-800-CLEANUP for disposal instructions. Do not place product down any indoor or outdoor drain.  
**Contaminated packaging:** If empty, place in trash or offer for recycling if available.

**14. TRANSPORT INFORMATION**

The description shown may not apply to all situations. Consult 49 CFR, or appropriate dangerous goods regulations for additional description requirements (e.g. technical name) and mode-specific or quantity-specific shipping requirements.

**DOT**

**Proper shipping name:** Consumer Commodity, ORM-D

**15. REGULATORY INFORMATION**

Components	CAS-No	CERCLA/SARA 313	CERCLA/SARA 302
Acephate	30560-19-1	Not Listed	Not Listed
Triforine	26644-46-2	Not Listed	Not Listed
Hexakis (Fenbutatin-Oxide)	13356-08-6	Not Listed	Not Listed

**General Information** Contact local authorities for disposal of large quantities of product

**16. OTHER INFORMATION****NFPA:** Health: 3 Flammability: 2 Reactivity: 0**HMIS:** Health: 3 Flammability: 2 Reactivity: 0**Hazard Rating:** 0=Least; 1=Slight; 2=Moderate; 3=High; 4=Severe**EPA FIFRA Comment:** Use of this product is regulated by the U.S. Environmental Protection Agency (EPA) through the approved product label. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.**General comment:** This document contains health, safety, and environmental information useful to emergency response agencies, health care providers, manufacturers, and workers/employees. It does not replace the precautionary language, use directions, or the storage and disposal information found on the product label.**Revision date:** 17-May-2005**Additional Information:** This information contained herein is, to the best of Scott's knowledge and belief, accurate and reliable as of the date of preparation of this document. However, no warranty or guarantee, express or implied, is made as to the accuracy or reliability, and Scotts shall not be liable for any loss or damage arising out of the use thereof. No authorization is given or implied to use any patented invention without a license. In addition, Scotts shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.