

**FLINN SCIENTIFIC, INC.**  
**Material Safety Data Sheet (MSDS)**

MSDS #: 303.50

Revision Date: December 19, 2011

**SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**2,4-Dichlorophenoxyacetic Acid**

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

**SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS**

2,4-Dichlorophenoxyacetic acid

Synonym: Trinoxol, 2,4-D

CAS#: 94-75-7

**SECTION 3 — HAZARDS IDENTIFICATION**

Off-white to tan or yellow crystalline powder.  
Toxic by ingestion, inhalation, and skin absorption.  
Severe eye irritant. Avoid all body contact.

**FLINN AT-A-GLANCE**

Health-3  
Flammability-0  
Reactivity-0  
Exposure-2  
Storage-0

0 is low hazard, 3 is high hazard

**SECTION 4 — FIRST AID MEASURES**

Call a physician and seek medical attention for further treatment, observation, and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

Eye or External: Immediately flush with fresh water for at least 15 minutes.

Internal: Rinse mouth. Give large quantities of water for dilution. Call a physician or poison control at once.

**SECTION 5 — FIRE FIGHTING MEASURES**

Nonflammable solid.

When heated to decomposition, emits toxic fumes of Cl.

**Fire Fighting Instructions:** Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

**NFPA CODE**

None  
established

**SECTION 6 — ACCIDENTAL RELEASE MEASURES**

Restrict unprotected personnel from the area. Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

**SECTION 7 — HANDLING AND STORAGE**

Flinn suggested chemical storage pattern: Organic #1. Store with acids, anhydrides, and peracids.

Store in a cool, dry place. Use and dispense in a hood.

**SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION**

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: TWA 10 mg/m<sup>3</sup> (OSHA)

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

Off-white to tan or yellow crystalline powder.

Solubility: Very slightly soluble in water; soluble in alcohols and other organic solvents.

Formula:  $C_8H_6Cl_2O_3$ 

Formula weight: 221.04

Boiling point: 160 °C

Melting point: 140.5 °C

Used as a plant growth hormone (auxin) typically in concentrations of 0.01 - 5.0 mg/L.

**SECTION 10 — STABILITY AND REACTIVITY**

Avoid contact with strong oxidizers.

Shelf life: Indefinite, if stored properly.

**SECTION 11 — TOXICOLOGICAL INFORMATION**

Acute effects: Toxic and severe eye irritant.

Chronic effects: Mutagen and neurological hazard.

Target organs: Liver, kidneys, gastrointestinal, and muscular system.

ORL-RAT LD<sub>50</sub>: 375 mg/kgIHL-RAT LC<sub>50</sub>: N.A.SKN-RBT LD<sub>50</sub>: 1500 mg/kg

N.A. = Not available, not all health aspects of this substance have been fully investigated.

**SECTION 12 — ECOLOGICAL INFORMATION**

Data not yet available.

**SECTION 13 — DISPOSAL CONSIDERATIONS**

Please review all federal, state and local regulations that may apply, before proceeding.

Flinn Suggested Disposal Method #4c is one option.

**SECTION 14 — TRANSPORT INFORMATION**

Shipping name: Not regulated

Hazard class: N/A

UN number: N/A

N/A = Not applicable

**SECTION 15 — REGULATORY INFORMATION**

TSCA-listed, EINECS-listed (202-361-1), RCRA code U240.

**SECTION 16 — OTHER INFORMATION**

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*  
for additional information about laboratory chemicals.**