




SAFETY DATA SHEET

Section 1: Product and Company Information

Product Name: Ortho® Killex® Lawn Weed Control Concentrate
Product Use: Weed Killer Herbicide for broadleaf weeds and brush.
MSDS Record Number: 27801-Rev3
Chemical Family: Chlorophenoxy and benzoic herbicides
Manufacturer: Scotts Canada Ltd.
 2000 Argentia Road, Plaza 5, Suite #101
 Mississauga, Ontario
 L5N 2R7
 www.scotts.ca
 Product Use Information: 1-800-668-5669
Emergency Telephone: Medical Emergencies: 1-888-779-7919
 Accident and Spill Emergencies: Canutec 1-613-996-6666
Other: Pest Control Products Act Registration Number: 27801

Section 2: Hazards Identification

Personal Protective Equipment	WHMIS	Transport Symbol
	<p>This product is regulated under the Pest Control Products Act and is exempt from WHMIS classification.</p>	<p>Not regulated</p>

Emergency Overview: Harmful if swallowed. May cause respiratory irritation. Causes serious eye damage. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Appearance, Colour and Odour: Liquid. Clear, amber-brown liquid. Strong fishy odour.

While this product is not regulated under WHMIS, this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Potential Health Effects: **ACUTE (short term):**

Relevant Route(s) of Exposure: Eye and skin contact; Inhalation; Ingestion; Skin Absorption

Inhalation: Breathing mists and vapours may cause irritation of the upper respiratory system, coughing, shortness of breath, headache, dizziness, nausea, vomiting, abdominal pain, decreased blood pressure, muscle weakness and muscle spasms.

Ingestion: Harmful if swallowed. Symptoms of ingestion may include headache, dizziness, nausea, vomiting, abdominal pain, decreased blood pressure, muscle weakness, loss of appetite, excitement, tenseness, exhaustion, loss of voice, and muscle spasms.

Skin: May cause irritation. Product may be absorbed through the skin; if skin contact is prolonged, components of this product may be absorbed in potentially harmful amounts. Repeated skin contact may cause skin sensitization reactions in certain individuals.

Eye: Direct contact with the product is severely irritating to the eyes.



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Section 2: Hazards Identification, continued

CHRONIC (long term): see Section 11 for additional toxicological data

Delayed symptoms of overexposure by inhalation or ingestion may include dizziness, muscle weakness, loss of appetite, weight loss, tenseness, depression, muscle spasms and exhaustion. Repeated or prolonged over-exposure to chlorophenoxy herbicides may cause liver, kidney, gastrointestinal, neurological and muscular effects.

Medical Conditions Aggravated by Exposure: Repeated exposure may aggravate an existing dermatitis.

Interactions With Other Chemicals: Not available

Potential Environmental Effects: Do not contaminate streams, lakes, ponds, irrigation water, water used for livestock or for domestic purposes by cleaning of equipment or disposal of wastes.

Section 3: Composition and Ingredient Information

<u>Common Name</u>	<u>Chemical Name</u>	<u>CAS No.</u>	<u>Wt.%</u>
2,4-D	2,4-dichlorophenoxyacetic acid, dimethylamine salt	94-75-7	9
Mecoprop-p	(R)-2-(4-chloro-o-tolyloxy)propionic acid	16484-77-8	5
Dicamba	3,6-dichloro-o-anisic acid, dimethylamine salt	1918-00-9	1

Notes: The ingredients are present as dimethylamine salts with less than 0.1% free amine, in water. These salts are generally less toxic than the acids. See Section 8 of this SDS for exposure limit data for these ingredients.

Section 4: First Aid Measures

Inhalation: If inhaled, move the person to fresh air. Call a poison control centre or doctor for medical advice. If not breathing, call 911 or an ambulance then give artificial respiration.

Eye Contact: Immediately flush with plenty of water for 15 to 20 minutes while holding the eyelids open. If a contact lens is present, remove the lens after the first 5 minutes, and then continue flushing. Call a poison control centre or obtain medical attention.

Skin Contact: If on skin or clothing, remove contaminated clothing and flush skin immediately with plenty of water for 15 to 20 minutes. Call a poison control centre or obtain medical advice. Wash contaminated clothing before reuse.

Ingestion: Immediately contact a Poison Control Centre or obtain medical advice. Do not induce vomiting unless instructed to do so by the poison control centre or doctor. Never give anything by mouth to an unconscious person.

Other: IF POISONING IS SUSPECTED or any symptoms are serious, immediately contact a doctor, the nearest hospital, or the nearest poison control centre. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.



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Section 5: Fire Fighting Measures

Flammable Properties:	Not applicable. Aqueous solution, will not flash.
Suitable extinguishing Media:	Use extinguishing media appropriate for the surrounding fire. Dry chemical, water spray, chemical foam, carbon dioxide, water fog.
Unsuitable extinguishing Media:	Not applicable
Explosion Data:	
Sensitivity to Mechanical Impact:	Not applicable
Sensitivity to Static Discharge:	Not applicable
Specific Hazards arising from the Chemical:	Combustion or thermal decomposition of this product may produce irritating and toxic gases. Decomposition products may include oxides of carbon, dimethylamine, hydrogen chloride, ammonia, and nitrogen oxides.
Protective Equipment and precautions for firefighters:	Firefighters should wear full protective gear including self-contained breathing apparatus when fighting chemical fires. Any water runoff should be minimized and contained.

Section 6: Accidental Release Measures

Personal Precautions:	Wear proper protective clothing described in Section 8. Avoid contact with skin and eyes.
Environmental Precautions:	Prevent runoff going into drains, sewers and other waterways.
Methods for Containment:	Stop further release or spread of contamination with absorbent material.
Methods for Clean-up:	In case of a spill, contact the manufacturer and the Provincial Regulatory Agency for clean-up information.

Section 7: Handling and Storage

Handling:	Read the label before using. Keep out of reach of children and prevent access by unauthorized personnel. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Strictly observe all precautions for handling and using pesticides.
Storage:	KEEP OUT OF REACH OF CHILDREN AND UNAUTHORIZED PERSONNEL. Keep in original container during storage in a well ventilated, cool, dry, and secure area. Ship and store away from food, feeds, seeds, fertilizers and other pesticides. Protect from freezing. Store away from open flame and other sources of heat.
General:	Do not allow spray, spray mist, visible or invisible vapours or air containing mist or vapours to contact plants other than those being sprayed. Avoid application of this product when winds are gusty. Do not use this product for controlling weeds in vegetable gardens, flower beds or around shrubs or ornamental plants. Do not contaminate streams, lakes, ponds, irrigation water, water used for livestock or for domestic purposes by cleaning of equipment or disposal of wastes. DO NOT water within 24 hours after application. Do not apply when rain is expected. DO NOT apply to driveways, sidewalks or any other hard surface. To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.



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Section 8: Exposure Controls and Personal Protection

Consult local authorities for acceptable exposure limits. Material exposure limits are for airborne 8-hour time-weighted averages and apply only to occupational exposures.

<u>Ingredient</u>	<u>Ontario TWAEV</u> <u>(mg/m³)</u>	<u>ACGIH TLV</u> <u>(8-hr. TWA)</u> <u>(mg/m³)</u>	<u>U.S. OSHA PEL</u> <u>(8-hr. TWA)</u> <u>(mg/m³)</u>
2,4-D	10	10	10
Mecoprop-p	Not established	Not established	Not established
Dicamba	Not established	Not established	Not established
Dimethylamine	5 ppm 15 ppm STEV	5 ppm 15 ppm STEL	18 (10 ppm)

Engineering Controls: General ventilation normally adequate. Monitor the airborne concentrations and provide additional ventilation if any exposure guideline is exceeded.
When handling more than 687.8 L per day of 2,4-D, workers must also use a closed handling system.

Personal Protection:

Eye/Face Protection: Wear protective eye wear (chemical splash goggles, face shield or safety glasses)

Skin Protection: Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Rinse gloves before removal. Coveralls should also be worn when open pouring from containers.

Respiratory Protection: Not normally required. Where occupational exposure limits are exceeded, workers should wear an approved respirator. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection. Consult with respirator manufacturer to determine respirator selection, use and limitations.

Work/Hygienic Practices:

Wear freshly laundered clothing and clean protective equipment daily. Rinse gloves before removal. Wash hands before eating, drinking, using tobacco or using the toilet. After work, remove all clothing and shower using soap and water.

If pesticide penetrates clothing, remove immediately; then wash contaminated skin thoroughly and shower. Launder contaminated clothing separately before reuse.

After using this product, remove clothing and launder separately and promptly. Thoroughly wash hands and exposed skin with soap and water. Follow manufacturer's instructions for cleaning personal protective clothing and equipment. If no such instructions for washables are provided, use detergent and hot water. Keep and wash personal protective equipment separate from household laundry.

IDLH (Immediately Dangerous to Life or Health):

The IDLH concentration for 2,4-D is 100 mg/m³.

Emergency or planned entry into unknown concentrations: Positive pressure, full-facepiece SCBA; or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA.

Escape: organic vapour respirator; or escape-type SCBA.



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Section 9: Physical and Chemical Properties

Physical State:	Liquid	Flash Point & method:	Not applicable
Appearance, Colour and Odour:	Clear to hazy, light yellow; mild fishy odour	Autoignition Temperature:	Not applicable
Odour Threshold:	Not available	Flammability Limits in Air:	Not applicable
pH:	7.5	Vapour Pressure:	Not available
Relative density: (water = 1)	1.2055 @ 20°C	Vapour Density: (Air = 1)	Not available
Partition coefficient: (n-octanol/water)	Not applicable	Evaporation Rate: (n-Butyl Acetate = 1)	Not available
Solubility:	Completely soluble in water.	Boiling Point/Range:	100°C
Viscosity:	Water thin	Freezing Point:	Not available
Decomposition Temperature:	Not available		

Section 10: Stability and Reactivity

Chemical Stability:	Stable
Conditions to Avoid:	Direct sunlight, extreme high temperatures.
Incompatible Materials:	Acids, caustics, strong oxidizers; calcium salts reduce herbicidal activity.
Hazardous Decomposition Products:	When heated to decomposition it emits toxic fumes of dimethylamine, hydrogen chloride, and nitrogen oxides.
Possibility of Hazardous Reactions:	Not applicable

Section 11: Toxicological Information

Acute Toxicity Data

<u>Product</u>	<u>LD₅₀ Oral (mg/kg)</u>	<u>LD₅₀ Dermal (mg/kg)</u>	<u>LC₅₀ Inhalation (ppm, 4 hrs.)</u>
Ortho® Killex® Lawn Weed Control Concentrate	>5000 (rat)	>2000 (rat)	Not available

Irritation:	Direct contact is severely irritating to the eye. May be irritating to skin. Mists and vapours may be irritating to the upper respiratory system.
Corrosivity:	Not applicable
Sensitization:	May cause skin sensitization reactions in certain individuals.
Neurological Effects:	Repeated or prolonged over-exposure to chlorophenoxy herbicides by ingestion or inhalation may cause neurological effects.
Genetic Effects:	Not available
Reproductive Effects:	Not available
Developmental Effects:	Not available
Target Organ Effects:	Repeated or prolonged over-exposure to chlorophenoxy herbicides by ingestion or inhalation may cause liver, kidney, gastrointestinal, neurological and muscular effects.



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Section 11: Toxicological Information, continued

Carcinogenicity:

In Canada, the PMRA (Pest Management Regulatory Agency) in its report *PACR2007-06, Re-evaluation of the Agricultural, Forestry, Aquatic and Industrial Site Uses of 2,4-D*, has concluded that on the basis of all available relevant data, 2,4-D cannot be classified as to its human carcinogenicity. The PMRA recommends that as with any chemical, caution should be exerted in its use, storage and disposal.
The United States EPA (Environmental Protection Agency) classifies 2,4-D in Group D, not classifiable as to human carcinogenicity.

Section 12: Ecological Information

Ecotoxicity:

This product is toxic to aquatic organisms and toxic to non-target terrestrial plants. Toxic to birds and small wild mammals. Do not apply directly to water or to areas where surface water is present. Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Persistence/Degradability:

Not available

Bioaccumulation/Accumulation:

Not available

Mobility:

The use of this chemical may result in contamination of groundwater, particularly in areas where soils are permeable (e.g. sand, loamy sand and sandy loam soils) and/or depth of the water table is shallow.

Section 13: Disposal Considerations

Waste Disposal Method:

Do NOT dump into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage.

Canadian formulators of this product should dispose of unwanted active ingredients and containers in accordance with municipal and provincial regulations. For information on disposal of unused or unwanted product, contact the manufacturer or the provincial regulatory agency.

Section 14: Transport Information

Canadian Transportation of Dangerous Goods (TDG):

Not regulated

U.S. Hazardous Materials Regulation (DOT 49CFR):

Reportable Quantity for Bulk US Shipments: 2,4-D 45.4 kg (100 lbs.)

IMO Classification:

Not regulated

Marine Pollutants:

Not applicable

ICAO/IATA Classification:

Not regulated



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Section 15: Regulatory Information

Pest Control Products Act (Canada): This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

WHMIS (Canada: Workplace Hazardous Materials Information System):

WHMIS Classifications: Exempt from classification under WHMIS. Pest control product regulated under *Pest Control Products Act*.

NSNR Status (Canada: New Substance Notification Regulations): All ingredients are listed, as required, on the Domestic Substances List (DSL).

TSCA Status (U.S.A. Toxic Substance Control Act): All ingredients are listed on the TSCA inventory.

Section 16: Other Information

Preparation Information:

Revision date: 2010-09-21

Manufacturer Disclaimer: The information contained herein is, to the best of the Manufacturer's (see Section 1 Product and Company Information) 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 the Manufacturer 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, the Manufacturer 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.

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