



SAFETY DATA SHEET

DREXEL MESOTRYONE 4L HERBICIDE

Section 1: Material Identification

Product Name: Drexel MesoTryOne 4L Herbicide

EPA Reg. No.: 19713-685

CAS NO: 104206-82-8

Formula: $C_{14}H_{13}NO_7S$

Company: Drexel Chemical Company
1700 Channel Avenue
Memphis, TN 38106

Synonyms: Mesotrione; 2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione

Identifiers:

EINECS: N/Av

RTECS: N/Av

DOT information: See Section 14 for Transport Information

Emergency Telephone Number:

CHEMTREC	Drexel Chemical Co.
Tel: 1-800-424-9300	901-774-4370

This product is an EPA FIFRA registered pesticide. Some of the classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Please see **Section 15: REGULATORY INFORMATION** for explanation.

Section 2: Hazard Identification

(As defined by the OSHA Hazard Communication Standard, 29)

GHS classification:

Health hazards:	Eye damage/irritation	Category 2B
	Specific Target organ toxicity (repeated exposure)	Category 2
Environmental hazards:	Aquatic acute toxicity	Category 1
	Aquatic chronic toxicity	Category 1

GHS label elements:

Signal word: Warning

**Hazard statements:**

Causes eye irritation.
May cause damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary statements:**Prevention:**

Do not breathe fume/mist/vapors/spray.
Wash skin thoroughly after handling.
Avoid release to the environment.

Response:

Get medical advice/attention if you feel unwell.
If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Collect spillage.

Storage:

Store in a cool, dry, well-ventilated and secure area designated for pesticides.

Disposal:

Dispose of contents/container in accordance with local/regional regulations.

Section 3: Composition Information

Components**CAS No.:****% By Wt.:****OSHA PEL:****ACGIH TLV:**

Active ingredient:

Mesotrione

104206-82-8

40.0%

N/Av

N/Av

Inert ingredients:

N/A

60.0%

N/A

N/A

Section 4: First-Aid Measures

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

If in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 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 Swallowed: Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. 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.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice

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.

Section 5: Fire Fighting Measures		
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Fire Hazards: Thermal decomposition during a fire can produce fumes and irritating gases.

Flammability classification (OSHA 29 CFR 1910.1200): Non-combustible

Flash point: >200°F

Lower flammable limit (% by volume): N/Av

Upper flammable limit (% by volume): N/Av

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Evacuate the area and fight the fire from upwind at a safe distance to avoid hazardous vapors or decomposition products. Dike and collect fire-extinguishing water to prevent environmental damage and excessive waste runoff.

Firefighting media: Use foam, dry chemical, carbon dioxide, or water fog when fighting fires involving this product. Do not use water jet, as this may spread burning material. Minimize the use of water to avoid environmental contamination. Contain all runoff.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Use full face shield and operate in positive pressure mode. Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

Hazardous Combustion Products: Carbon oxides, nitrogen oxides, sulfur oxides, toxic fumes and smoke.

NEPA: Health: Flammability: Reactivity:

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(Rating: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Insignificant)

Section 6: Accidental Release Measures		
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Steps to be taken if Material is Released or Spilled:

- Contain spilled material if possible. Small spills: Apply suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Drexel Chemical Co. for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

Personal Precautions:

- Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling and Storage, for additional precautionary measures. Ventilate area of spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls/Personal Protection.

Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Section 7: Handling and Storage		
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KEEP OUT OF REACH OF CHILDREN

- Handling:** **General Handling:** Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling. Do not swallow. Avoid breathing dust. Use with adequate ventilation. Wear long sleeve shirt, long pants and socks with shoes when handling. Keep away from heat, sparks and flame. See Section 8, Exposure Controls/Personal Protection.
- Storage:** Store in a cool, dry, well ventilated and secure area designated specifically for pesticides and away from heat, flame and ignition sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies.

Section 8: Exposure Controls / Personal Protection

Exposure Limits: N/Av

Personal Protection:

Eye/Face Protection: Wear safety glasses with tight fitting goggles to prevent mists from entering the eyes. If using a full face shield, always use safety glasses or goggles along with the face shield to ensure adequate protection of the eyes.

Skin Protection: Wear long sleeve shirt, long pants and shoes with socks. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR") or Polyvinyl chloride ("PVC" or "vinyl").

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. When handling in enclosed areas, when large quantities of mists are generated or prolonged exposure is possible, use a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

Ingestion: Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face with soap and water before smoking or eating.

Engineering Controls:

Ventilation: When handling this product proper ventilation is required. Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

Section 9: Physical and Chemical Properties

Appearance:	Off-white liquid
Odor:	Mild @ 21°C
Odor threshold:	N/Av
pH:	2.5-4.0 @ 21°C (5% dilution)
Melting point/freezing point:	N/Av
Solubility (water):	N/Av
Boiling point:	N/Av
Flash point:	>200°F

Evaporation rate:	N/Av
Flammability:	Non-combustible
Upper/lower flammability or explosive limits:	N/A
Vapor pressure (mmHg):	N/Av
Vapor density:	N/Av
Density:	10.00 lbs./gal.
Partition co-efficient (n-octanol/water):	N/Av
Auto0ignition temperature:	N/A
Decomposition temperature:	N/Av
Viscosity:	600-800 cP @ 21°C
Explosive properties:	N/A
% Volatiles:	N/Av

Section 10: Stability and Reactivity

Stability/Instability: Stable under normal use and storage conditions

Conditions to Avoid: Should not be stored in mild steel, cast iron or aluminum containers. Spray solution should not be mixed, stored or applied in containers other than plastic, plastic-lined steel, stainless steel or fiberglass.

Incompatible Materials: See "Conditions to Avoid"

Hazardous Polymerization: Will not occur

Thermal Decomposition: Decomposition products can include carbon oxides, nitrogen oxides, sulfur oxides and toxic gases.

Section 11: Toxicological Information

Data for finished product:

Acute Toxicity:

Ingestion:

- Oral, LD50, (rat): >5000 mg/kg

Dermal:

- Dermal, LD50, (rat): >5,000 mg/kg

Inhalation:

- Inhalation, 4h, LC50, (rat): >5.19 mg/l

Eye Irritation (rabbit):

- Mildly irritating

Skin Irritation (rabbit):

- Slightly irritating

Sensitization Skin:

- Non-sensitizer (guinea pig)

Chronic Toxicity (Mesotrione):

- Animal studies showed evidence of reduced bodyweight gain, increased liver and kidney weights, blood effects (polycythemia, reduced blood cell count) and eye effects (cataract formation, keratitis). No known neurotoxic effects based on animal studies.

Carcinogenicity (Mesotrione):

- Not listed as carcinogenic by IARC, NTP, ACGIH or OSHA.

Teratogenicity, mutagenicity, and other reproductive effects (Mesotrione): Not mutagenic. Not a reproductive hazard.

Section 12: Ecological Information

ENVIRONMENTAL FATE:

- This product is highly toxic to fish and aquatic invertebrates, slightly toxic to birds, and practically non-toxic to bees on an acute basis.

Persistence and Degradability:

- Not persistent in soil. Stable in water. Moderate mobility in soil. Sinks in water (after 24h).

Aquatic Toxicity:

- Daphnia magna, EC50: 900 mg/l
- Rainbow Trout, LC50: 120 mg/l
- Bluegill Sunfish, LC50: 120 mg/l
- Green algae, EC50: 4.5 mg/l
- Duckweed, EC50: 0.23 mg/l

Bird Toxicity:

- Mallard Duck, Oral, LD50: 1,421 mg/kg

Section 13: Disposal Considerations

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

Section 14: Transport Information

DOT: Not regulated

IMDG: UN 3082, Environmentally hazardous substance, liquid, n.o.s. (Mesotrione), 9, PG-III, Marine Pollutant

IATA: UN 3082, Environmentally hazardous substance, liquid, n.o.s. (Mesotrione), 9, PG-III

Freight Description: Agricultural herbicide, liquid, n.o.s.

ERG Guide No.: 171

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service

representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

OSHA Hazard Communication Standard:

- This product is hazardous as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

EPA FIFRA INFORMATION:

- 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 chemical. The hazard information required on the pesticide label is listed out below. The pesticide label also includes other important information, including directions for use.
- EPA Label Human Hazard Statements: **CAUTION:** Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

EPA/CERCLA Reportable Quantity: None known

SARA/TITLE III:

- **Sec. 302. Extremely Hazardous Substance Notification:** This material is not known to contain any Extremely Hazardous Substances.
- **Sec. 311/312. Hazard Categories:** Acute Health Hazard
Chronic Health Hazard
- **Sec. 313. Toxic Chemical(s):** This material is not known to contain any Toxic Chemical constituents.
- **RCRA Waste Code:** Not applicable

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):

- Not applicable

Toxic Substances Control Act (TSCA):

- All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

Section 16: Other Information

Drexel Chemical Company recommends that each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown below. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.

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