



# MATERIAL SAFETY DATA SHEET #4056

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**SUPERSEDES:** 1/22/07

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## I. PRODUCT IDENTIFICATION

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**PRODUCT NAME:** LESCO Octane 2% SC Herbicide

**Chemical Family:** Phenylpyrazole herbicides

**Chemical Name/Synonyms:** Pyraflufen-ethyl [ethyl 2-chloro-5-(4-chloro-5-difluoromethoxy-1-methyl-1H-pyrazol-3-yl) 4 fluorophenoxyacetate]

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## II. COMPOSITION/INFORMATION ON INGREDIENTS

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CHEMICAL NAME	% (by/wt.)	CAS #	PEL/TLV
Pyraflufen-ethyl	2.0	129630-19-9	NE
Water	88.5	7732-18-5	NE
Other ingredients	9.5	NA	NA

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## III. HAZARDS IDENTIFICATION

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**EMERGENCY OVERVIEW:** Primary Route(s) of Entry: Eyes, Skin, Inhalation, Ingestion

**POTENTIAL HEALTH EFFECTS:** Caution. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing.

**EYE:** Causes slight eye irritation

**SKIN:** Can cause mild skin irritation. Harmful if absorbed through skin. Does not cause skin sensitization in animal studies.

**INHALATION:** This product is not expected to present an inhalation hazard.

**INGESTION:** There is no data available regarding ingestion toxicity. Handle as a potential ingestion hazard.

**MEDICAL CONDITIONS AGGRAVATED:** None known.

**POTENTIAL ENVIRONMENTAL HAZARDS:** This product is toxic to fish and aquatic invertebrates. This product may contaminate water through drift of spray in wind or via runoff events. Use care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not apply when weather conditions favor drift from treated areas.

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## IV. FIRST AID MEASURES

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**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.

**SKIN:** 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.

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

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## V. FIRE FIGHTING MEASURES

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**Flash Point (Method Used):** No flash observed at temperatures up to 110C

**Lower Explosion Limits:** ND

**Auto Ignition Temperature:** No ignition below 400C

**Upper Explosion Limits:** ND

**NFPA/HMIS Rating:** Health: 2

Fire: 1

Reactivity: 0

**EXTINGUISHING MEDIA:** Foam  
 Dry Powder Alcohol Foam  
 Water CO<sub>2</sub>  
 Other**EXPLOSION HAZARDS:** No known explosion characteristics.**FIRE FIGHTING PROCEDURES:** Wear positive pressure self-contained breathing apparatus. Spray containers with water to keep cool. Avoid runoff from extinguishing media such as water, foam, and dry chemicals into ponds, rivers, and lakes due to danger of acute toxicity to aquatic organisms.**HAZARDOUS COMBUSTION PRODUCTS:** Will burn to give off toxic oxides of carbon and nitrogen.

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**VI. ACCIDENTAL RELEASE MEASURES**

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**RELEASE NOTES:** If liquid is spilled on the floor or other impervious surfaces, it should be contained or diked and then absorbed with sawdust, sand, bentonite, or other absorbent clay. Collect contaminated absorbent and place it in a metal drum. Thoroughly scrub the floor or other impervious surface with a strong industrial-type detergent and rinse with water.

Liquid spills that soak into the ground should be dug up and placed in metal drums. When a large spill or leakage is found, wear protective clothing and respirator to avoid exposure.

Avoid contaminated absorbents or water flow into ponds, rivers, and lakes, due to the danger of acute toxicity to aquatic organisms. Notify authorities if contamination of waterways has occurred.

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**VII. HANDLING AND STORAGE**

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**GENERAL PROCEDURES:** Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Avoid contact with skin, eyes or clothing. Use with adequate ventilation. Use good personal hygiene practices. Wash hands and face before eating, drinking, smoking, chewing gum, or using the toilet. Remove contaminated clothing and clean before reuse.**OTHER PRECAUTIONS:** Store in tightly closed original container in cool, dry, isolated, well-ventilated area away from heat, open flame, or sources of ignition. Avoid storage in direct sunlight, excessive heat or cold. Do not contaminate water by cleaning of equipment or disposal of waste.

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**VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**ENGINEERING CONTROLS:** Local exhaust ventilation may be necessary under certain confined conditions. If practical, use ventilation at the sources of air contamination.**PERSONAL PROTECTION EQUIPMENT:****EYES AND FACE:** Safety glasses**RESPIRATORY:** Ensure good ventilation. If not adequate, use a suitable respirator.**GLOVES:** Chemical resistant gloves**PROTECTIVE CLOTHING:** Long-sleeved shirt and long pants; shoes plus socks**WORK HYGENIC PRACTICES:** 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. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.**COMMENTS:** Provide an eyewash station where eye contact may occur.

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**IX. PHYSICAL AND CHEMICAL PROPERTIES**

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**BOILING POINT:** ND**SPECIFIC GRAVITY:** ND**MELTING POINT:** NA**EVAPORATION RATE:** ND**DENSITY:** 1.023 g/ml**VAPOR PRESSURE:** ND**ODOR:** Slight non-specific odor**SOLUBILITY IN WATER:** ND**APPEARANCE:** White, milky liquid**PERCENT VOLATILE:** ND**pH:** 6.84 @ 24C (1% aqueous dilution)**VISCOSITY:** non-Newtonian

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**X. STABILITY AND REACTIVITY**

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**CONDITIONS TO AVOID:** Keep away from heat, open flame, or sources of ignition**STABILITY:** Stable**POLYMERIZATION:** Will not occur

**INCOMPATIBLE MATERIALS:** None known

**HAZARDOUS DECOMPOSITION PRODUCTS:** Will burn to give off toxic oxides of carbon and nitrogen.

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**XI. TOXICOLOGICAL INFORMATION**

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**EYE EFFECTS:** (Rabbit): Slightly irritating

**SKIN EFFECTS:** (Rabbit): Slightly irritating

**DERMAL LC<sub>50</sub>:** (Rat): >2,000 mg/kg

**ORAL LD<sub>50</sub>:** (Rat, male): >5,000 mg/kg; (Rat, female): >5,000 mg/kg

**INHALATION LC<sub>50</sub>:** (Rat): > 5.53 mg/L

**SENSITIZATION:** (Guinea pig): Non-sensitizing

**ACUTE EFFECTS FROM OVEREXPOSURE:** Causes slight eye irritation. Can cause mild skin irritation. Harmful if absorbed through the skin.

**CHRONIC EFFECTS FROM OVEREXPOSURE:**

A 90-day rat feeding study was conducted at dose levels up to 15,000 ppm pyraflufen-ethyl showing liver and kidney effects at the high dose (15,000 ppm ~1500 mg/kg). The NOEL in this study was considered to be 1,000 ppm. In a 90-day oral toxicity study in dogs, pyraflufen-ethyl was administered at dose levels up to 1,000 mg/kg/day. No effects in body weight or organ weight, clinical chemistry, hematology, histopathology, or gross pathology were observed.

In long-term studies, no effects were observed in dogs exposed for one year to a maximum dose of 1000 mg/kg. In a two-year rat chronic study, liver and kidney effects were observed at 2,000 ppm. The NOEL was 400 ppm (~20 mg/kg).

**CARCINOGENICITY:** Pyraflufen-ethyl was tested in lifetime studies in rats and mice. There was no evidence of carcinogenicity in the rat at doses as high as 10,000 ppm (~470 mg/kg). In the mouse study, the incidence of hepatocellular adenoma was increased in animals receiving 5,000 ppm, a dose level considered to be in excess of a MTD (maximum tolerated dose). This benign tumor was likely induced by the adaptive response to the hepatocellular degeneration and not carcinogenic response to pyraflufen-ethyl.

**IARC:** Not Listed

**OSHA:** Not Listed

**NTP:** Not Listed

**OTHER:** EPA Draft Guidelines for Carcinogen Risk

Assessment (July, 1999), classified pyraflufen-ethyl as "likely to be carcinogenic to humans" by the oral route.

**Teratogenicity:** Pyraflufen-ethyl was not a developmental toxin in rats at dose levels of 1000 mg/kg or rabbits at doses of 60 mg/kg.

**Reproductive Effects:** Pyraflufen-ethyl is not a reproductive toxin.

**Neurotoxicity:** There was no neurotoxicity seen in acute, subchronic, chronic, reproduction, and teratology studies conducted with pyraflufen-ethyl after exposure in the diet.

**Mutagenicity:** Pyraflufen-ethyl technical was not mutagenic in any of the genotoxicity studies conducted.

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**XII. ECOLOGICAL INFORMATION**

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**ENVIRONMENTAL DATA:** This product is toxic to fish and aquatic invertebrates. This product may contaminate water through drift of spray in wind or via runoff events. Use care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not apply when weather conditions favor drift from treated areas. Do not apply if rainfall is expected within one hour.

**ECOTOXICOLOGICAL INFORMATION:** No Data

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**XIII. DISPOSAL CONSIDERATIONS**

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**DISPOSAL METHODS:** Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

**Product:** Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container:** Do not reuse empty container. Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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**XIV. TRANSPORTATION INFORMATION:**

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**DOT Transportation:**

Not Regulated

**Proper Shipping Name:**

NA

**Hazard Class:**

NA

**U.S. Surface Freight Class:**

20 – Compounds, tree or weed killing (Herbicides), NOI, other than poison

**Marine Pollutant #1:**

Not Listed

**HM 181 Shipping Name:**

NA

**ID NO.:**

NA

**Reportable Quantity (RQ):**

NA

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**XV. REGULATORY INFORMATION – UNITED STATES**

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**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):****SEC 311/312:****Y** Immediate (Acute Health)**N** Delayed (Chronic Health)**N** Fire**N** Sudden Release of Pressure**N** Reactivity**SEC 302 (Extremely Hazardous Substance):** NA**SEC 304 (Emergency Release Notification):** NA**SEC 313 (Toxic Chemicals):** NA

CERCLA RQ: NA

CAA RQ: NA

**EPA Registration No.:** 71711-25-10404

NOTE: NA=Not Applicable; ND=Not Determined; NE=Not Established

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