

Material Safety Data Sheet



Emergency Phone: 517-636-4400
General Phone: 1-800-352-6776

EPA Reg. Number: 62719-92
Effective Date: January 31, 1995
Product Code: 12169
MSDS Number: 003599
DowElanco • Indianapolis, IN 46268

CONFRONT* Herbicide

1. INGREDIENTS: (% w/w, unless otherwise noted)

Triclopyr (3,5,6-trichloro-2-pyridinyloxyacetic acid),
as the triethylamine salt
CAS# 057213-69-133.0%
Clopyralid (3,6-dichloro-2-pyridinecarboxylic acid),
as the triethylamine salt12.1%
Other Ingredients(total), including: 54.9%
Water . . . CAS# 007732-18-5
Proprietary Emulsifier & sequestering agent
Triethylamine . . . CAS# 000121-44-8

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

2. PHYSICAL DATA:

BOILING POINT: Approx. 212°F, 100°C
VAP. PRESS: Similar to that of water
VAP. DENSITY (Air =1): Not determined
SOL. IN WATER: Completely soluble
SP. GRAVITY: 1.14 @ 68°F/68°F
APPEARANCE: Clear amber liquid
ODOR: Slight amine smell

3. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: 150°F, 66°C
METHOD USED: SFCC
FLAMMABLE LIMITS:
LFL: Not determined
UFL: Not determined
EXTINGUISHING MEDIA: Foam, CO2
FIRE AND EXPLOSION HAZARDS: Irritating vapors under fire conditions. Material is a water solution and except under gross fire conditions should not burn. Avoid contaminating water supplies with run-off water.
FIRE-FIGHTING EQUIPMENT: Under fire conditions use positive-pressure, self-contained breathing apparatus and full protective clothing.

4. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Store under cool, dry conditions. Avoid elevated temperatures and direct sunlight.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Avoid acid, oxidizing material, halogenated organics, brass, copper, zinc, and aluminum.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, nitrogen oxides under fire conditions; chlorinated pyridine.

HAZARDOUS POLYMERIZATION: Will not occur.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS: Absorb spills with inert material such as Zorbball, Hazorb or sand. Dike areas in case of large spills. Do not contaminate water supplies and irrigation ditches. In case of large spills, contact DowElanco.

DISPOSAL METHOD: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, 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.

6. HEALTH HAZARD DATA:

EYE: May cause severe irritation and moderate corneal injury. Effects may be slow to heal. Vapors of amines may cause swelling of the cornea, resulting in visual disturbances, such as blurred, smoky, or halo vision.

SKIN CONTACT: Prolonged exposure not likely to cause significant skin irritation. Prolonged or frequently-repeated skin contact may cause allergic skin reaction in some individuals.

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD50 for skin absorption in rabbits is >2000 mg/kg.

INGESTION: Single dose oral toxicity is low. The oral LD50 for male rats is 2164 mg/kg and for females 1521 mg/kg. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. Ingestion may cause gastrointestinal irritation or ulceration.

*Trademark of DowElanco

2/3

Material Safety Data Sheet



Emergency Phone: 517-636-4400
General Phone: 1-800-352-6776

EPA Reg. Number: 62719-3
Effective Date: January 31, 1995
Product Code: 12169
MSDS Number: 003599
DowElanco • Indianapolis, IN 4

CONFRONT* Herbicide

INHALATION: Single exposure to vapors is not likely to be hazardous.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Excessive exposure may cause liver, kidney or heart effects.

CANCER INFORMATION: Did not cause cancer in long-term animal studies (active ingredients).

TERATOLOGY (BIRTH DEFECTS) Triclopyr did not cause birth defects in lab animals. Clopyralid has caused birth defects in laboratory animals only at doses toxic to the mother.

REPRODUCTIVE EFFECTS: In animal studies, triclopyr and clopyralid have been shown not to interfere with reproduction.

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): Results of in vitro ('test tube') mutagenicity tests on triclopyr and clopyralid have been negative (active ingredients). Results of mutagenicity tests in animals have also been negative.

7. FIRST AID:

EYES: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention promptly.

SKIN: Wash with plenty of water. Get medical attention.

INGESTION: Promptly drink a large quantity of milk, egg whites, or gelatin solution, or, if these are not available, drink large quantities of water. Avoid alcohol. Call a physician.

INHALATION: Remove victim to fresh air. Get medical attention.

NOTE TO PHYSICIAN: May cause tissue destruction leading to stricture. If lavage is performed, suggest endotracheal and/or esophagoscopy control. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE(S): 3,5,6-trichloro-2-pyridoxoacetic acid (triclopyr), triethylamine salt: Dow Industrial Hygiene Guide is 2 mg/m³ as acid equivalent, Skin.

Triethylamine: ACGIH TLV is 1 ppm, TWA, 5 ppm STEL, skin; OSHA PEL is 10 ppm TWA, 15 ppm STEL.

Clopyralid (3,6-dichloropicolinic acid): the Dow Industrial Hygiene Guide is 10 mg/m³.

PELs are in accord with those recommended by OSHA, as in the 1989 revision of PELs.

VENTILATION: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

RESPIRATORY PROTECTION: Atmospheric level should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator.

SKIN PROTECTION: When handling concentrate wear protective clothing such as long-sleeved shirt, long-legged pants, rubber gloves, and footwear, neoprene or nitrile butadiene rubber. Remove contaminated clothing and wash before reuse.

EYE PROTECTION: Use chemical goggles or face shield.

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep out of reach of children and animals. Do not swallow. Avoid contact with skin and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing. Keep container closed. Do not ship or store with food, feed, drugs or clothing. Avoid breathing spray mist. Do not contaminate water supplies (domestic or for irrigation).

MSDS STATUS: Revised Regulatory Information

Material Safety Data Sheet



Emergency Phone: 517-636-4400
General Phone: 1-800-352-6776

EPA Reg. Number: 62719-92
Effective Date: January 31, 1995
Product Code: 12169
MSDS Number: 003599
DowElanco • Indianapolis, IN 46268

CONFRONT* Herbicide

REGULATORY INFORMATION:

(Not meant to be all-inclusive—selected regulations represented).
NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See MSD Sheet for health and safety information.

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Concentration</u>
Triclopyr, triethylammonium salt	057213-69-1	33.0%
Triethylamine	000121-44-8	2.3%

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

- An immediate health hazard
- A delayed health hazard
- A fire hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in Section 1 of the MSDS.

<u>CHEMICAL NAME</u>	<u>CAS NO.</u>	<u>LIST</u>
N,N-DIETHYLETHANAMINE	000121-44-8	NJ3 NJ1 PA3 PA1

- NJ1=New Jersey Special Health Hazard Substance (present at greater than or equal to 0.1%).
- NJ3=New Jersey Workplace Hazardous Substance (present at greater than or equal to 1.0%).
- PA1=Pennsylvania Hazardous Substance (present at greater than or equal to 1.0%).
- PA3=Pennsylvania Environmental Hazardous Substance (present at greater than or equal to 1.0%).

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

<u>Category</u>	<u>Rating</u>
Health	3
Flammability	2
Reactivity	0

The Information Herein Is Given In Good Faith, But No Warranty, Express Or Implied, Is Made. Consult DowElanco For Further Information.