

MATERIAL SAFETY DATA SHEET

2,4-D Amine 4

MANUFACTURER: AGRILIANCE, LLC
ADDRESS: P.O. BOX 64089 ST PAUL, MN 55164-0089
EMERGENCY NO. - DAY OR NIGHT: 1-800-424-9300

TELEPHONE NUMBER FOR INFORMATION: 1-800-232-3639

SECTION I -- HAZARDOUS INGREDIENTS IDENTITY AND INFORMATION

| HAZARDOUS COMPONENTS | * OTHER | | | CAS# | % |
|--|----------------------|-----------|----------------------|---------|------|
| | OSHA PEL | ACGIH TLV | LIMITS STEL | | |
| 2,4-Dichlorophenoxyacetic acid, dimethylamine salt | 10 mg/m ³ | | 20 mg/m ³ | 94-75-7 | 47.3 |
| Inert ingredients | | | | | 52.7 |

SECTION II -- PHYSICAL AND CHEMICAL CHARACTERISTICS

BOILING POINT: 10⁰C SP. GRAVITY (H₂O): 1.157
VAPOR PRESSURE (mm Hg): NDA MELTING POINT: NA
VAPOR DENSITY: NDA EVAPORATION RATE: NDA
SOLUBILITY IN WATER: Infinite
APPEARANCE AND ODOR: Clear amber to dark brown liquid with fish phenolic odor.

SECTION III -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: NONE FLAMMABLE LIMITS : Not determined.

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, foam, water fog.

SPECIAL FIRE FIGHTING PROCEDURES: If water is used, use a soft fog to avoid spreading contamination. Use self-contained breathing apparatus and full protective gear in confined areas of buildings. Contain water to prevent entry into water supplies.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Noxious vapors under high temperature conditions.

SECTION IV -- REACTIVITY DATA - STABILITY:

UNSTABLE CONDITIONS TO AVOID:

STABLE CONDITIONS TO AVOID: Avoid exposure to heat or flame.

INCOMPATIBILITY (MATERIALS TO AVOID): Acids and oxidizing materials.

HAZARDOUS DECOMPOSITION OR BY PRODUCTS: Hydrogen chloride, nitrogen oxide under fire conditions.

HAZARDOUS POLYMERIZATION:

MAY OCCUR CONDITIONS TO AVOID:

WILL NOT OCCUR CONDITIONS TO AVOID:

SECTION V -- HEALTH HAZARD DATA

HEALTH HAZARDS: EYE: May cause severe irritation with corneal injury and may result in permanent impairment of vision, even blindness. SKIN CONTACT: Prolonged exposure may cause skin irritation. SKIN ABSORPTION: A single prolonged skin exposure may result in the materials being absorbed in harmful amounts. The LD50 for skin absorption in rabbits is 2871 mg/kg. INGESTION: Single dose oral toxicity is low. The LD50 for male rats is 1492 mg/kg and for female is 837 mg/kg. Ingestion may cause gastrointestinal irritation. INHALATION: Single exposure to vapors is not likely to be hazardous.

SIGNS AND SYMPTOMS OF EXPOSURE: SYSTEMIC & OTHER EFFECTS: Excessive exposure may cause liver, kidney, gastrointestinal and muscular effects. Signs and symptoms of excessive exposure may be nausea and/or vomiting and abdominal cramps and/or diarrhea. Various animal cancer tests have shown no reliable positive association between 2,4-D exposure and cancer. Epidemiology studies have been both positive and negative with the majority being negative. Birth defects are unlikely. Exposures having no effect on the mother should have no effect on the fetus. Did not cause birth defects in animals; other effects were seen in the fetus only at doses which caused toxic effects to the mother. High dietary levels of 2,4-D caused toxic effects (weight and viability reduction) in rats on a reproduction test. Has been shown to be negative in some vitro ("test tube") mutagenicity tests and positive in others. Results of mutagenicity tests in animals have been inconclusive .

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

EMERGENCY FIRST AID PROCEDURES: EYES: Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel. SKIN: Wash off in flowing water or shower. Wash contaminated clothing before reuse. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

INGESTION: Induce vomiting by touching back of throat with finger. Give large amounts of water or milk , and transport to medical facility. INHALATION: Remove to fresh air if effects occur. Consult medical personnel.
FIRST AID: NOTE TO PHYSICIAN: Corrosive. May cause stricture. If lavage is performed, suggest endotracheal and/or esophagosopic control. If burn is present, treat as any thermal burn after decontamination. Supportive care, treatment based on judgement of the physician in response to reaction of the patient. No specific antidote.

SECTION VI -- PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spill in inert material. Dike area in case of large spills.
WASTE DISPOSAL METHOD: Dispose of in accordance with regulations.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: See label. Keep out of reach of children. Do not get in eyes, on skin or clothing. Do not swallow. Washing facilities near work area. Do not store near fertilizer, seed, fungicide or insecticides. Do not contaminate irrigation ditches or water used for domestic purposes . OTHER PRECAUTIONS : Wash contaminated clothing separately before reuse.

SECTION VII -- CONTROL MEASURES--PROCESS AREAS

RESPIRATORY PROTECTION: Not normally required during use
VENTILATION: LOCAL EXHAUST: General area exhaust is acceptable.
PROTECTIVE GLOVES: Impervious required.
EYE PROTECTION: Use safety glasses or goggles.
PROTECTIVE CLOTHING OR EQUIPMENT: Long-sleeved shirt or coveralls.
WORKPLACE AND HYGIENIC PRACTICES: Wash thoroughly after handling and before eating or smoking. Do not smoke or eat while handling.

SECTION VIII - - REGULATORY COMPLIANCE

THE FOLLOWING INFORMATION IS SUPPLIED TO AID IN COMPLIANCE WITH STATE AND FEDERAL REGULATIONS ENVIRONMENTAL STATUTES:

REPORTABLE QUANTITY (RQ) , EPA REGULATION 40 CFR 302 (CERLA Section 102):CHEMICAL - 2,4-Dichlorophenoxyacetic acid CAS # 94-75-7
RQ: 100# (Equivalent amount of this product would be 26 gallons)

THRESHOLD PLANNING QUANTITY (TPQ) , EPA REGULATION 40 CFR 355 (SARA sections 301-304): CHEMICAL - NA CAS #: NA TPQ: NA

TOXIC CHEMICAL RELEASE REPORTING, EPA REGULATION 40 CFR 372 (SARA Section 313) : CHEMICAL - 2,4-Dichlorophenoxyacetic acid
CAS #: 94-75-7 % BY WEIGHT IN PRODUCT: 39.3%

HAZARDOUS CHEMICAL REPORTING, EPA REGULATION 40 CFR 370 (SARA Sections 311-312) : CHEMICAL - 2,4-Dichlorophenoxyacetic acid
CAS #: 94-75-7

EPA HAZARD CLASSIFICATION CODE:

| | | | | | |
|--------------|----------------|-------------|-----------------|-----------------|----------------|
| ACUTE HAZARD | CHRONIC HAZARD | FIRE HAZARD | PRESSURE HAZARD | REACTIVE HAZARD | NOT APPLICABLE |
| XX | XX | | | | |

HAZARD RATING: NFPA
1 FIRE 2 TOXICITY 0 REACTIVITY 3 CORROSIVENESS

HAZARD RATING CODE : 0-None 1-Slight 2-Moderate 3-High U-Unknown

SECTION IX -- TRANSPORTATION INFORMATION

For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Material Incidents. DOT P 5800.5

DOT IDENTIFICATION: 4 x 1 gallon and 2 x 2-1/2 gallon: Not regulated
RQ : 100# 2,4-D (Equivalent amount of product would be 26 gallons)

30 and 55 gallon drum: RQ, Environmentally Hazardous substance, liquid, N.O.S., (2,4-D Salt), 9, UN 3082, PG III

Bulk over 119 gallons: RQ, Environmentally Hazardous Substance, liquid, N.O.S., (2, 4-D Salt), Marine Pollutant, 9, UN 3082, PG III

OSHA REQUIRED LABEL INFORMATION: In compliance with hazard and right-to-know requirements, the following OSHA Hazard Warnings should be found on a label, bill of lading or invoice accompanying this shipment . NONE

NOTE: Product label will contain additional non-OSHA related information.

DATE: January 10, 1996 SUPERSEDES: May 4, 1995
Revision: Format change
The information herein was given in good faith but no warranty, expressed or implied was made. Consult Agrilience, LLC for further information
NA = NOT APPLICABLE NDA = NO DATA AVAILABLE