

MATERIAL SAFETY DATA SHEET

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Pendant 3.3 EC Herbicide**EPA Reg. No. 1381-216**

Date Revised:

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EMERGENCY TELEPHONE NUMBERS:: (877) 424-7452
CHEMTREC: 1 (800) 424-9300

SECTION I**Trade Name:** Pendant™ 3.3 EC Herbicide

Chemical Name: N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine

Synonyms: pendimethalin;

Formula: C₁₃ H₁₉ N₃ O₄

Chemical Family: dinitroaniline

Mol Wt: 281.350**SECTION II – INGREDIENTS**

COMPONENT	CAS NO.	%	PEL/TLV-SOURCE
Pendimethalin*	40487-42-1	37.40	3 mg/m ³
Inerts		10.30	None established
Petroleum solvent containing naphthalene*	64742-94-5 91-20-3	51.90 (7.26)	15 ppm recommended by EXXON 10ppmACGIH/OSHA
Ethylene dichloride*	107-06-2	0.40	10 ppm ACGIH/OSHA 40 ppm STEL

SARA Title III Section 313: *Listed

SECTION III - PHYSICAL DATA**BOILING/MELTING POINT@760mm Hg:** 244 °C (extrapolated) pH: 6- 7 (2-4% aqueous)**VAPOR PRESSURE mmHg @ 20°C:** 5.6 (at 25°C)**SPECIFIC GRAVITY OR BULK DENSITY:** 1.06 G/mL 8.86 lb/gal**SOLUBILITY IN WATER:** Emulsifiable**APPEARANCE:** Dark amber liquid **ODOR:** Aromatic **INTENSITY:** Moderate**SECTION IV - FIRE AND EXPLOSION DATA**

FLASH POINT (TEST METHOD):	208 °F (SETA Flash)	AUTOIGNITION TEMP: 375 °C
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FLAMMABILITY LIMITS IN AIR (% BY VOL): LOWER: N/D UPPER: N/D**NFPA 704 HAZARD CODES**

HEALTH: 1	FLAMMABLE: 1	INSTABILITY: 1	OTHER: N/R
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NFPA 30 STORAGE CLASSIFICATION: Class III B**EXTINGUISHING MEDIUM:** Use water fog, foam, CO(2), or dry chemical extinguishing media.**SPECIAL FIREFIGHTING PROCEDURES:** Firefighters should be equipped with self-contained breathing apparatus and turnout gear.**UNUSUAL FIRE EXPLOSION HAZARDS:** None known. Decomposition temperature 244°C.

N/A - Not available; N/D - Not determined; N/R - Not rate d; N/E - Not established

SECTION V – HEALTH DATA:

TOXICOLOGICAL TEST DATA:

Data for formulated product:

Rat, Oral LD50 (combined sexes) = 3956 mg/kg

Rabbit, Dermal LD50 > 2200 mg/kg

Rat, Inhalation LC50 (4 hr, actual) > 5.35 mg/L

Rat, Inhalation LC50 (1 hr calculated) > 21.4 mg/L

Rabbit, Eye Irritation – Mildly irritating

Rabbit, Skin Irritation – Mildly irritating

Guinea pig, Dermal Sensitizer – Not a skin sensitizer

For pendimethalin:

A marked depression in body weight gain and statistically significant increase in benign thyroid proliferative lesions were observed at the highest dose tested (5000 ppm) in the lifetime (24 month) rat study.

The US EPA has classified pendimethalin an oncogenicity rating of “low c” (possible human carcinogen).

OSHA, NTP, or IARC Carcinogen: Ethylene dichloride listed – IARC Group 2 B (Possibly carcinogenic to humans); NTP – Reasonably anticipated to be a human carcinogen.

EFFECTS OF OVEREXPOSURE:

See Product Label and Directions For Use for additional precautionary statements.

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION! KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation.

Avoid contact with skin, eyes or clothing.

For a major component (petroleum solvent) of this formulation:

Slightly irritating to the eyes. Prolonged contact with skin may irritate and cause dermatitis. May aggravate an existing skin condition. Inhalation of vapor/aerosol concentrations (> 1000 ppm) are irritating to eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death. Small amounts aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death. At high oral doses in rats, this component caused damage to the stomach, liver, thyroid, and urinary bladder. These effects are not relevant to humans at occupational levels of exposure.

For naphthalene (a component of petroleum solvent):

Ingestion of naphthalene results in cramps, nausea, vomiting and diarrhea, listlessness, bladder irritation and brownish urine. Inhalation of naphthalene may cause headache, confusion, and excitement. Chronic overexposure to naphthalene may result in liver and/or kidney disorders. Hemolysis, anemia, fever, hemoglobinuria, and jaundice may also occur. Those with prior blood diseases may be more severely affected.

A National Toxicology Program (NTP) report states that lifetime inhalation exposure to naphthalene resulted in increases in tumors of the nose in rats. In a previous NTP study, lifetime inhalation exposure to naphthalene increased lung tumors in female mice. The relevance of the rodent findings to humans is questionable.

Acute overexposure to solvent naphtha vapors may cause central nervous system effects, including headache, dizziness, drowsiness, and confusion. Ingestion causes nausea, vomiting, blurred vision, and CNS disorder. Aspiration of the liquid into the lungs may result in chemical pneumonitis, which may be fatal. Prolonged or repeated skin contact may cause defatting and dermatitis.

Existing medical conditions aggravated by exposure to this material: No information found for this mixture.

FIRST AID PROCEDURES

If swallowed:	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 by a poison control center or doctor. Do not give anything to an unconscious person.
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If on 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.
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.
Note to physician:	Contains petroleum distillate. Vomiting may cause aspiration pneumonia. Because of increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent, vomiting should be induced only under professional supervision. Pendimethalin is a strongly orange-red compound – virtually an aniline dye. Cases have been described of orange-yellow coloration of urine following heavy exposure of workers to the dust of pendimethalin. Despite its structure as both a nitro-compound and aromatic amine, exposure to pendimethalin is NOT associated with methemoglobinemia.
Note:	Have the product container or label with you when calling a poison control center or doctor or going for treatment.

SECTION VI – REACTIVITY DATA

STABILITY: Stable. Do not store below 40°F or above 120°F.

CONDITIONS TO AVOID: Store in original container in cool, dry, well-ventilated place away from ignition sources, heat or flame.

CHEMICAL INCOMPATIBILITY: Oxidizing agents, strong alkali

HAZARDOUS DECOMPOSITION PRODUCTS: Including but not limited to oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION: Does not occur.

CONDITIONS TO AVOID: Does not polymerize.

CORROSIVE TO METAL: No

OXIDIZER: No

SECTION VII – PERSONAL PROTECTION

PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions For Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS

Respiratory Protection:

Supplied air respirators should be worn if large quantities of mist/dust are generated or prolonged exposure possible.

Eye Protection:

Chemical goggles when respirator does not provide eye protection.

Protective Clothing:

Gloves and protective clothing as necessary to prevent skin control.

Ventilation:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

SECTION VIII – ENVIRONMENTAL DATA**ENVIRONMENTAL TOXICITY DATA**

For the active ingredient (pendimethalin):

- Toxic to fish.
- Very toxic to aquatic plants.
- Toxic to plants.
- Not readily biodegradable.

This product is toxic to fish and plants.

However, if used according to labeled directions, the hazard to fish and non-target plants is very low.

SARA 311/312 REPORTING

FIRE: N	PRESSURE: N	REACTIVITY: N	ACUTE: Y	CHRONIC: Y	TPQ (lbs): N/R
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SPILL AND LEAK PROCEDURES:

In case of large scale spillage of this product, avoid contact, isolate area and keep out animals and unprotected persons. Call CHEMTREC (800 424-9300) or Winfield Solutions, LLC (877 424-7452). For a small spill, wear personal protective equipment as specified on the label. Eliminate all ignition sources. FOR A LIQUID SPILL: Dike and contain the spill with inert material (sand, earth, etc.) and transfer the liquid and solid diking materials to separate containers for disposal. Remove personal protective equipment and decontaminate it prior to re-use.

HAZARDOUS SUBSTANCE SUPERFUND: Yes

RQ(lbs): 100

WASTE DISPOSAL METHOD:

Pesticide wastes are acutely hazardous. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

HAZARDOUS WASTE 40CFR261: Yes

HAZARDOUS WASTE NUMBER: D028
(other codes may apply)

CONTAINER DISPOSAL:

FOR PLASTIC CONTAINERS: Triple rinse (or equivalent) and add rinsate to the spray tank. 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.

FOR BULK CONTAINERS: Reusable containers should be returned to the point of purchase for cleaning and refilling.

FOR MINIBULK CONTAINERS: Clean all tanks on an approved loading pad so rinsate can be collected and mixed into the spray solution or into a dedicated tank. Using a high pressure sprayer, rinse several times with small volumes of water to minimize rinsate.

SECTION IX – SHIPPING DATA – PACKAGE AND BULK

D.O.T. PROPER SHIPPING NAME (40CFR172.101-102): > 155 gallons – Environmentally hazardous substances, liquid, n.o.s. 155 gallons or less - none		HAZARDOUS SUBSTANCE (49CFR CERCLA LIST): Naphthalene, ethylene dichloride RQ (lbs): 100	
D.O.T. HAZARD CLASSIFICATION (CFR 172.101-102): PRIMARY 155 gallons – Class 9 Package - None		SECONDARY: None	
D.O.T. LABELS REQUIRED (49CFR172.101-102): 9	D.O.T. PLACARDS REQUIRED (CFR172.504):	POISON CONSTITUENT (49CFR172.203 (K): None	
BILL OF LADING DESCRIPTION 155 gallons – RQ, Environmentally hazardous substances, liquid, n.o.s. (naphthalene), 9, UN 3082, PG III, ERG 171 Package – Compounds, Tree or Weed Killing (herbicides), NOIBN (This material is not regulated by the Department of Transportation in a package size of 155 gallons or less.)			
CC NO.: Not applicable		UN/NA CODE: UN 3082	

SECTION X – ADDITIONAL INFORMATION

Complete Label and Directions for Use are attached to the product.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under “Agricultural Use Requirements” in the Directions for Use section for information about this standard.

DISCLAIMER

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY WINFIELD SOLUTIONS, LLC HEREUNDER ARE GIVEN GRATIS AND WINFIELD SOLUTIONS, LLC ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.