

MATERIAL SAFETY DATA SHEET

Agricultural Products Group
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EMERGENCY TELEPHONE NUMBERS:

BASF Corporation: 1 (800) 832-HELP

CHEMTREC: 1 (800) 424-9300

Product No.: 579649 **Pendulum® 3.3 EC herbicide**

Date Prepared: 7/21/2000 **Date Revised: 4/6/2001**

SECTION I

Trade Name: Pendulum® 3.3 EC herbicide

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

Synonyms: pendimethalin, AC 92,553; Stomp® 3.3 EC herbicide **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	None established
Inerts		10.70	None established
Petroleum solvent	64742-94-5	51.60	100 ppm recommended by EXXON
containing naphthalene	91-20-3	(7.22)	10 ppm ACGIH/OSHA
Ethylene dichloride	107-06-2	0.30	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: 1.07 g/mL

SOLUBILITY IN WATER: Emulsifiable

APPEARANCE: Dark amber liquid **ODOR:** Aromatic **INTENSITY:** Moderate

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD): 201 °F (Pensky-Martens) **AUTOIGNITION TEMP:** 375 °C

FLAMMABILITY LIMITS IN AIR (% BY VOL): **LOWER:** N/D **UPPER:** N/D

NFPA 704 HAZARD CODES

HEALTH: N/R **FLAMMABLE:** N/R **INSTABILITY:** 0 **OTHER:** N/R

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.

SELECT ACRONYM KEY

N/A - Not available; N/D - Not determined; N/R - Not rated; 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) > 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.

CAUTION! KEEP OUT OF REACH OF CHILDREN.

CAUSES MODERATE EYE IRRITATION.

HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN.

AVOID CONTACT WITH EYES, SKIN OR CLOTHING.

For a component of the formulation:

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.

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 disorders. 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 this product: none known

FIRST AID PROCEDURES

- 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 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 on skin or clothing:** 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 contact.

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

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 BASF Corporation (800 832-HELP). 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 re-filling.

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 (49CFR172.101-102):**

>154 gallons - Environmentally hazardous substances, liquid, n.o.s.
154 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**

> 154 gallons - Class 9

Package - None

SECONDARY

None

D.O.T. LABELS REQUIRED (49CFR172.101-102):

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D.O.T. PLACARDS REQUIRED (CFR172.504):**POISON CONSTITUENT (49CFR172.203(K)):**

None

BILL OF LADING DESCRIPTION

> 154 gallons - RQ, Environmentally hazardous substances, liquid, n.o.s. (naphthalene), 9, UN 3082, PG III, ERG 171, Marine Pollutant

Package - Compounds, Tree or Weed Killing (herbicides), NOIBN

(This material is not regulated by the Department of Transportation in a package size of 154 gallons or less.)

CC NO.: Not applicable

UN/NA CODE: UN 3082

SECTION X - ADDITIONAL INFORMATION

Pendulum® 3.3 EC herbicide

EPA Reg. No. 241-341

KEEP OUT OF REACH OF CHILDREN

CAUTION

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.

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DISCLAIMER

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