



Safety Data Sheet

Report Date 10-Feb-18

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1. Identification

Product Name : HELENA PENDIMETHALIN
Synonyms : None
Product Use : Pendimethalin Herbicide
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Danger
Skin Irritation : Slightly irritating (rabbit)
Eye Irritation : Slightly irritating (rabbit)
Acute Toxicity Oral : LD50 3,956 mg/kg (rat)
Acute Toxicity Dermal : LD50 >2,000 mg/kg

Hazard Categories : Oral/Dermal/Inhalation Tox-5/5/5; Eye/Skin Irrit.-2B/3; Aspiration-1; Carcinogen-2; Aquatic Tox-1/1

Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes mild skin irritation
May be harmful if inhaled
May be fatal if swallowed and enters airways
Suspected of causing cancer
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Pendimethalin	40487-42-1	37.4
Naphthalene, 2-methyl-	91-57-6	<12.0
Naphthalene, 1-methyl-	90-12-0	<6.0
Naphthalene	91-20-3	<7.0
Balance, proprietary ingredients	Trade Secret	<39.0



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4. First Aid Measures

- Eye** : Wash affected eyes for at least 15 minutes under running water with eyelid held open. Seek medical attention if irritation persists.
- Skin** : Immediately wash thoroughly with soap and water. Seek medical attention.
- Inhalation** : Keep patient calm. Remove to fresh air. Seek medical attention.
- Ingestion** : Immediately rinse mouth and then drink 8 to 12 ounces of water. Seek medical attention. Do not induce vomiting due to aspiration hazard.
- Indication of Immediate Medical Attention and Special Treatment Needed** : First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

5. Fire Fighting Measures

- Extinguishing Media** : Use foam, dry powder, carbon dioxide or water spray extinguishing agents.
- Specific Hazards Arising from the Chemical** : Emits carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide and hydrocarbons under fire conditions. If heated above decomposition temperature, toxic vapors will be released.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

- Personal Precautions** : Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable protective clothing and equipment.
- Protective Equipment** : Splashproof goggles or face shield, chemical-resistant gloves, impervious apron and footwear. Respiratory protection if ventilation is inadequate. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.
- Methods and Materials for Containment and Cleanup** : Dike spillage. Pickup with suitable absorbent material. Place into suitable containers for reuse in accordance with the product label or disposal in a licensed facility. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

- Precautions for Safe Handling** : Do not contaminate water, food or feed by storage, handling or disposal. Ensure adequate ventilation. Keep away from sources of ignition. No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use.
- Conditions for Safe Storage** : Do not store below 40 Degrees F. Extended storage at temperatures below 40 Degrees F. can result in formation of crystals on the bottom of the container. If crystallization occurs, store the container on its side at room temperature (70 Degrees F.) and agitate occasionally until crystals redissolve.



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8. Exposure Controls / Personal Protection

TLV/PEL : No TLV or PEL for active ingredient. Naphthalene: TLV=10 ppm, PEL=10 ppm 50 mg/m³. 1,2,3-trimethylbenzene: TLV=25 ppm.

Appropriate Engineering Controls : Use appropriate engineering controls to minimize the need for PPE.

Personal Protective Equipment : Splashproof goggles or face shield, chemical-resistant gloves, impervious apron and footwear. Respiratory protection if ventilation is inadequate. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

Odor/Appearance : Dark amber liquid with aromatic odor.

Flash Point, °F : approximately 104 Degrees C.

Boiling Point, °F : approximately 250 Degrees C.

Melting Point(Freezing point), °C : No information found

Vapor Pressure, mm Hg @ 20 °C : 0.05 hPa (approx)

Vapor Density : Not applicable

Solubility in Water : Emulsifiable

Molecular Formula : Not applicable, formulated mixture.

Density, g/mL @ 25 °C : 1.07 (approx)

Evaporation Rate(Butyl Acetate = 1) : No information found

Octanol/Water Partition Coefficient : No information found

pH : 6 to 7 (approx)

Flammable Limits (approximate volume % in air) : No information found

Auto-ignition Temperature : Approximately 491 Degrees C.

Decomposition temperature : 226-230 Degrees C.

10. Stability and Reactivity

Reactivity : No hazardous reactions if stored/handled properly.

Chemical Stability : Stable

Hazardous Decomposition Products : None if stored and handled as prescribed. Emits carbon monoxide, carbon dioxide, nitrogen oxide, hydrocarbons under fire conditions.

Hazardous Polymerization : Will not occur

Conditions to Avoid : Avoid all sources of ignition, prolonged storage, electrostatic discharge, contamination, extreme temperatures.

Incompatible Materials : Nitric acid, sulfuric acid, oxidizing agents, strong alkalis.



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11. Toxicological Information

- Acute Toxicity (Oral LD50)** : 3,956 mg/kg (rat). May be harmful if swallowed.
- Acute Toxicity (Dermal LD50)** : >2,000 mg/kg (rat). May be harmful in contact with skin.
- Acute Toxicity Inhalation LC50** : >5.45 mg/L (rat). May be harmful if inhaled.
- Likely Routes of Exposure** : Ingestion, inhalation, skin, eyes
- Skin Irritation** : Causes mild skin irritation.
- Eye Irritation** : Causes eye irritation.
- Skin Sensitization** : Not listed as a skin sensitizer.
- Carcinogenic** : Suspected of causing cancer. Pendimethalin: In long term studies in rats, induced thyroid tumors.
- Chronic Effects** : Chronic exposure to naphthalene, such as is found in the petroleum solvent, may result in liver and/or kidney disorders.
- Other Hazards** : Aspiration Hazard: May be fatal if swallowed and enters airways. CA Prop 65 Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm (naphthalene).

12. Ecological Information

- Ecotoxicity** : Very toxic (acute effect) to aquatic organisms.
- Persistence and Degradability** : Not readily biodegradable.
- Bioaccumulative Potential** : This product has not been tested.
- Mobility in Soil** : This product has not been tested. Following exposure to soil, pendimethalin adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.
- Other Adverse Effects** : Do not release untreated into natural waters.

13. Disposal Considerations

- Waste Disposal Method** : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act. (RCRA D028=1,2-dichloroethane)

14. Transport Information

- UN Proper Shipping Name** : Not regulated by DOT in single containers less than 155 gallons.
- Transport Hazard Class** : None
- UN Identification Number** : None
- Packaging Group** : None
- Environmental Hazards** : Marine Pollutant (pendimethalin) under IATA and IMDG.
- Transport in Bulk** : If single container >155 gallons, ship as RQ, UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (Naphthalene), 9, PG III "ERG # 171"



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Special Precautions for Transportation : Reportable quantity (RQ), Naphthalene = 100 pounds (155 gallons)
Freight Classification : Pesticides, NOI, Herbicides, Other than Poison (NMFC Item 155050, Sub 11, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 1 Fire: 1 Reactivity: 1
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: Y
Sudden Release of N
Pressure:
Fire: N
Reactive: N

FIFRA Information : This Chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Registration Number : 241-337-5905

FIFRA Signal Word : Caution

FIFRA Label Statement : Keep out of reach of children.

FIFRA Label Statement : Causes moderate eye irritation.

FIFRA Label Statement : Harmful if swallowed or absorbed through the skin.

FIFRA Label Statement : Avoid contact with skin, eyes or clothing.

FIFRA Label Statement : No additional label statements.

FIFRA Label Statement : No additional label statements.

FIFRA Label Statement : No additional label statements.

16. Other Information

Data of Preparation/Revision : 10-February-2018