

DREXEL PENDIMETHALIN TECHNICAL

SECTION 1: MATERIAL IDENTIFICATION

Product Name: Drexel Pendimethalin Technical
EPA Reg. No.: 19713-600
Product Usage: Herbicide

Manufacturer: Drexel Chemical Company
Address: 1700 Channel Avenue
PO Box 13327
Memphis, Tennessee, 38113-0327, USA
901-774-4370

Emergency Telephone Numbers: CHEMTREC 800-424-9300
DREXEL CHEMICAL COMPANY 901-774-4370

This product is an EPA FIFRA registered pesticide. Some of the classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Refer to SECTION 15: REGULATORY INFORMATION for explanation.

SECTION 2: HAZARD IDENTIFICATION

(As defined by the OSHA Hazard Communication Standard, 29)

Label Elements:

Signal Word:

WARNING



Classifications:

Hazard Class:

Toxicity Study:

Serious eye damage / irritation
Hazard to Aquatic Environment, short term (Acute)

Category:

Category 2B
Category 1

Hazard Statements:

H Code:

Statement:

H320 Causes eye irritation.
H400 Very toxic to aquatic life

Precautionary Statements:

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wash face, hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
In case of inadequate ventilation, wear respiratory protection.
Avoid release into the environment.

Response:

If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Get immediate medical advice/attention.

If Swallowed: Call a POISON CENTER or doctor/physician if you feel unwell. Treat symptomatically.

If Inhaled: Remove person to fresh air and keep comfortable for breathing. Call POISON CENTER or doctor if you feel unwell.

If on Skin or Clothing: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

If exposed or concerned: None available, get medical attention.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in a cool, dry, and secure area designated specifically for pesticides and away from heat sources. Always use oldest stock first.

Disposal: Dispose of contents/container in accordance with your local or area regulatory authorities.

Specific hazards: None available.

SECTION 3: COMPOSITION INFORMATION

<u>Chemical Name:</u>	<u>Synonym:</u>	<u>CAS No.:</u>	<u>EC No.:</u>	<u>RTECS:</u>	<u>% By Wt.:</u>
Active Ingredient: Pendimethalin	Pendimethalin, N-(1-ethylpropyl)-3, 4-dimethyl- 2, 6-dinitrobenzenamine; Pendulum Tech	40487-42-1	254-938-2	N/A	96.0 % (minimum)
Inert Ingredients: *nitrosamines may be present at up to 29 ppm	N/A	N/A	N/A	N/A	4.0 %

SECTION 4: FIRST-AID MEASURES

Have the product container, label and / or Safety Data Sheets (SDS) with you when calling a poison control center or doctor or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency medical treatment information.

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the 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 do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Skin/Clothing Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 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.

Indication of Medical Attention and Special Treatment Needed: Treat symptomatically. If medical advice is needed, have product container or label at hand.

Note to Physician: If amount ingested was small, if effective emesis has already occurred, or if treatment is delayed, consider administration of activated charcoal and sorbitol by mouth. If large amounts have been ingested and the patient is seen within an hour of ingestion, gastrointestinal decontamination should be considered. There is not specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition. Pendimethalin is a strongly orange-red-yellowish 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. Exposure to Pendimethalin is NOT associated with methemoglobinemia.

SECTION 5: FIRE FIGHTING MEASURES

Fire Fighting Media: Dry chemical, CO₂, Foam, Water mist/ spray

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Evacuate the area and fight the fire from upwind at a safe distance to avoid hazardous vapors or decomposition products. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Soak thoroughly with water to cool and prevent re-ignition. If material is molten, do not apply direct water stream. Use fine water spray or foam. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of re-ignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Hand held dry chemical or carbon dioxide extinguishers may be used for small fires. Move container from fire area if this is possible without hazard. Contain fire water run-off if possible. Cool closed containers exposed to fire with water spray, if possible. Fire water run-off, if not contained, may cause environmental damage. Review SECTION 6: ACCIDENTAL RELEASE MEASURES and SECTION 12: ECOLOGICAL INFORMATION of this SDS. Dike and collect fire-extinguishing water to prevent environmental damage and excessive waste runoff. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Use full face shield and operate in positive pressure mode. Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.


Specific Fire Hazards: Organic dust may form an explosive dust-air mixture.

Flammability classification (OSHA 29 CFR 1910.1200):
May burn, but not readily flammable

Flash point: 208°F
Lower flammable limit (% by volume): N/Av
Upper flammable limit (% by volume): N/Av

Hazardous Combustion Products: Carbon oxides, nitrogen oxides, irritating fumes and smoke.

National Fire Protection Association:

NFPA: 	Health	Fire	Reactivity		
	2	1	1		
Ratings:	4-Extreme	3-High	2-Moderate	1-Slight	0-Insignificant

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to SECTION 7: HANDLING AND STORAGE, for additional precautionary measures. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION.

Environmental Precautions:

Do not flush into surface water or sanitary sewer system. Prevent from entering soil, ditches, sewers, waterways and/or groundwater. Refer to SECTION 12: ECOLOGICAL INFORMATION.

Steps to be taken if Material is Released or Spilled:

Control the spill at its source.

Small spills: Stop the flow of material, if this is without risk. Apply suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Prevent entry into waterways, sewers, basements or confined areas.

Large spills: Stop the flow of material, if this is without risk. Apply suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Contact Drexel Chemical Company for clean-up assistance. Refer to SECTION 13: DISPOSAL CONSIDERATIONS, for additional information. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7: HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN

Handling:

General Handling: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not swallow. Avoid breathing dust. Avoid breathing vapors. Do not eat, drink or smoke when using this product. Use with adequate ventilation. Wear chemical protective equipment when handling. Wear long-sleeved shirt, long pants and shoes with socks when handling. Keep away from heat, sparks and flame. Do not reuse this container. Refer to SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION.

Storage:

Store in a cool, dry, ventilated and secure area designated specifically for pesticides and away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies. Always use oldest stock first.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

Components:	OSHA PEL	ACGIH TLV
Pendimethalin	3 mg/m ³	10 mg/m ³
Excursion Limit Recommendation:	Excursions in worker exposure levels may exceed 3 times the TLV-TWA for no more than a total of 30 minutes during a work day, and under no circumstances should they exceed 5 times the TLV-TWA, provided that the TLV-TWA is not exceeded.	

THIS SECTION IS FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD REFER TO THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Engineering Controls:

Ventilation: Investigate engineering techniques to reduce exposures. When handling this product proper ventilation is required to maintain exposure below the TLV. Ventilate all transport vehicles prior to unloading. Facilities storing or utilizing this material should be equipped with an eyewash facility / station and safety shower. Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Personal Protection:

Eye/Face Protection: Eye contact should be avoided through the use of chemical safety glasses, goggles, or a face shield selected in regard to exposure potential. Wear chemical splash goggles to prevent vapors or mists from entering the eyes. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields.

Ingestion: Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face thoroughly with soap and water before smoking or eating. Avoid getting wash water in eyes.

Hand Protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber (“nitrile” or “NBR”) or Viton, Polyvinyl chloride (“PVC” or “vinyl”). The selection of gloves for a particular application and duration of use in the workplace should also be taken into account all relevant workplace factors such as, but not limited to: other chemicals which may be handled, physical requirements (cut/ puncture protection, dexterity, thermal protection), potential body reactions to gloves materials, as well as the instructions / specs provided by the supplier of gloves.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. When handling in enclosed areas, when large quantities of dusts are generated or prolonged exposure is possible in excess of the TLV, use a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Reported Value
Physical State	Powder/ granules
Appearance / Color	Yellow-orange
Odor	Mild Odor
Odor threshold	Not available
pH	4.5 – 7.0
Melting point	132°F
Freezing point	Not available
Boiling point	330°C
Flash point	208°F
Evaporation rate	Not available
Flammability	Not available
Upper flammability/explosive limits	Not available
Lower flammability/explosive limits	Not available
Vapor pressure	9.4 x 10 ⁻⁶ mm Hg at 20°C
Vapor density	Not available
Relative density	1.17 g/cm ³
Solubility in water	0.5 mg/L at 20°C
Solubility in organic solvents	Not available
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available

Explosive properties	Not available
Oxidizing properties	Not available
Dissociation Constant	Not available
% Volatiles	Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Thermally stable at typical use temperatures and in closed containers.
Chemical Stability:	Stable under recommended storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Avoid temperatures above 100°C (212°F). Generation of oxides of carbon and nitrogen.
Incompatible Materials:	Avoid contact with: Strong oxidizing agents and strong alkali.
Hazardous Decomposition Products:	Pendimethalin, stable under normal conditions, decomposed on heating above 220°C.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Potential routes of exposure/potential health effects:	Skin contact, Eye contact, Ingestion	
Acute Oral:	LD₅₀ (Rat):	4,665 mg/kg
Acute Dermal:	LD₅₀ (Rat):	>5,000 mg/kg
Acute Inhalation:	LC₅₀ (Rat):	Aerosol, Rat: >26.92 mg/l (1 hr.)
		Aerosol, Rat: >6.73 mg/l (4 hr.)
Eye Irritation:	(Rabbit):	Slight to moderate irritation
Skin Irritation:	(Rabbit):	No skin irritation (rabbit)
Skin Sensitization:	(Guinea Pig):	Did not cause allergic skin reactions when tested on (guinea pig). Non-sensitizing.

Chronic Toxicity:	No organo-toxicity observed after repeated administration to animals.
Carcinogenicity:	Listed by EPA as Group C- Possible Human Carcinogen; By ACGIH as Group 2B; not listed by IARC, NTP, or OSHA as carcinogenic.
Mutagenicity:	No data available
Teratogenicity:	No data available
Reproductive Toxicity:	No data available
Developmental Toxicity:	No data available
Specific target organ toxicity- single exposure:	No data available / Not classified
Specific target organ toxicity- repeated exposure:	No data available / Not classified
Other Hazards Effects:	No data available

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE

Pendimethalin Material is very toxic to fish, aquatic organisms, aquatic invertebrates, and algae, toxic to birds and practically non-toxic to honeybees.

ECO-ACUTE TOXICITY

Aquatic Toxicity:

Rainbow Trout, LC₅₀ 96 hour	0.89 mg/L
Bluegill Sunfish, LC₅₀ 96 hour	0.2 mg/L
Sheepshead minnow, LC₅₀ 96 hour	0.707 mg/L
Daphnia magna, LC₅₀ 48 hour	0.977 mg/L

Arthropod Toxicity: Bees, Acute LD₅₀ >100 ug/bee

Bird Toxicity:

Mallard Duck, LD₅₀	1,425 mg/kg
Bobwhite Quail, LD₅₀	4,187 ppm

Algal Toxicity: Algae, LC₅₀ 96 hour Very toxic to algae

Soil Organism Toxicity: Earthworm acute toxicity No data

Persistence and degradability: Strongly adsorbed by most soils. Practically insoluble in water, will not leach in most soils. Removed from the water column by binding to suspending sediment and organic matter. Rapidly degraded under aerobic conditions once precipitated to sediment.

Bioaccumulation:

Mobility in soil:

Other adverse effects: Do not contaminate water supplies, lakes, streams, ponds or drains with this product.

SECTION 13: DISPOSAL CONSIDERATIONS

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

SECTION 14: TRANSPORT INFORMATION

DOT: Not Regulated

IMDG: UN 3077, Environmentally hazardous substances, solid, n.o.s. (Pendimethalin), 9, PG-III, Marine Pollutant

IATA / ICOA: UN 3077, Environmentally hazardous substances, solid, n.o.s. (Pendimethalin), 9, PG-III

UN Identification No.: UN 3077

Proper Shipping Name: Environmentally hazardous substances, solid, n.o.s. (Pendimethalin)

Hazard Class: 9

Packing Group: III

Reportable Quantity: Not listed

Environmental Hazard: Marine Pollutant

Freight Description: Agricultural Herbicide, Solid, N.O.S.

ERG Guide No.: 171

Transport Information Note: None

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Standard: This product contains hazardous components as defined under the criteria of the Federal OSHA Hazardous Communication Standard 29 CFR 1910.1200

Pesticide Registration: This product is a pesticide registered by the Environmental Protection Agency (EPA) and is subject to certain FIFRA labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

EPA Reg. No.: 19713-600
FIFRA Label Signal Word: CAUTION
FIFRA Label Information: KEEP OUT OF REACH OF CHILDREN
FIFRA Label Information: Hazards to Humans and Domestic Animals
 CAUTION: Harmful if swallowed. Wash hands thoroughly with soap and water after handling and before eating, drinking, using tobacco or using the toilet

EPCRA SARA Title III Classification:

Section 302:	Extremely Hazardous Substance Notification:	This material is not known to contain any Extremely Hazardous Substances.
Sections 311 and 312:	Immediate (Acute) Health Hazard:	Yes
	Delayed (Chronic) Health Hazard:	Yes
	Fire Hazard:	No
	Reactive Hazard:	No
	Sudden Release of Pressure Hazard:	No

Section 313 Toxic Release Inventory (TRI): Pendimethalin, CAS No.: 40487-42-1, 96.0 % min

CERCLA/SARA 304 Reportable Quantity (RQ): Not listed / Not available

RCRA Hazardous Waste Classification (40 CFR 261): Not listed / Not available

US EPA Toxic Substances Control Act (TSCA): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):

Pendimethalin	Listed as causing:	Not listed
	Listing date:	Not listed
	Listing basis:	Not listed

This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

KEY**

N/A	N/Av	Not available
W/W		Weight/Weight
OEL		Occupational Exposure Limit
STEL		Short Term Exposure Limit
TWA		Time Weighted Average
ACGIH		American Conference of Governmental Industrial Hygienists, Inc.
OSHA PEL		Permissible Exposure Limit
WEEL		Workplace Environmental Exposure Level
HAZ_DES		Hazard Designation
Action Level		A value set by OSHA that is lower than the PEL which will trigger the need for activities such as exposure monitoring and medical surveillance if exceeded.

SECTION 16: OTHER INFORMATION

Date Issued: May 15, 2020

Date Supersedes: May 04, 2020

Revision: 1

For all non-emergency questions about this product, please contact:

1700 Channel Avenue
PO Box 13327
Memphis, Tennessee 38113-0327, USA

Phone: 901-774-4370
Fax: 901-774-4666
Website: www.drexchem.com

Drexel Chemical Company recommends that each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided 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 between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.