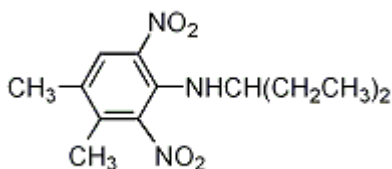


Material Safety Data Sheet

Pendimethalin 450g/L CS

1. PRODUCT IDENTIFICATION/COMPANY IDENTIFICATION

Product Name: Pendimethalin 450g/L CS
 Common Name: Pendimethalin
 Chemical Name: N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine
 Chemical Family: Dinitroaniline
 Chemical Formula: C₁₃H₁₉N₃O₄
 Structural formula:



CAS No.: 40487-42-1
 Product Use: Herbicide

COMPANY DETAILS:

Manufacturer and Exporter: CHICO CROP SCIENCE CO., LTD.
 Address: Rm 903, Unit C, Tian An International Bldg, Renmin South Rd, Shenzhen, China.
 Tel: 0086-0755-22969266 22969199
 Fax: 0086-0755-25919993

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Registry Number</u>	<u>Typical Wt. % w/w</u>
Pendimethalin	40487-42-1	38.3%
Inert	-	to 100%

3. HAZARDS IDENTIFICATION

Emergency Overview

Yellow flowing liquid

CAUTION!

KEEP OUT OF REACH OF CHILDREN

MAY CAUSE EYE AND SKIN IRRITATION

MAY CAUSE ALLERGIC SKIN REACTION.

Potential Health effects

Dermal contact, ingest and inhalation of the product are the primary routes to induce potential adverse health effects. Inhalation of aerosol during application of the product as part of its end use is another potential route of entry. Eye and skin irritation may occur from contact with the liquid or spray mixture.

4. FIRST AID MEASURES

If swallowed: If ingestion is suspected, using one or two glasses of water and induce vomiting by touching back of throat with finger. Never give anything by mouth to an unconscious person. Should be send to the hospital treatment immediately.

If in eye: Immediately rinse eyes with a large amount of running water. Hold eyelids apart to rinse the advice of a physician.

If on skin: Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.

If Inhaled: Move victim from contaminated area to fresh air. Apply artificial respiration if necessary.

Notes to Physician:

There is no specific antidote, Treat symptomatically.

5. FIRE FIGHTING MEASURES

Fire and explosive Properties

Auto-Ignition Temperature	Not applicable
Flash Point	Not available, the solvent is water.

Extinguishing Media

Water fog, Carbon Dioxide, Dry Chemical, Foam and halogenated agents.

Fire Fighting Instructions

The product is not flammable. But if firing, fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear and self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use. Person who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

6. ACCIDENTAL RELEASE MEASURES

In Case Of Spill or Leak

Stop the leak, if possible. Ventilate the space involved. Absorb, sweep up, place in container for disposal. Shut off or remove all ignition sources. Prevent waterway contamination. Construct a dike to prevent spreading. Protect works with water spray. Collect run-off water and transfer to drums or tanks for later disposal.

7. HANDLING AND STORAGE

Handling

Harmful if swallowed, inhaled, or absorbed through the skin. Causes eye irritation. Do not breathe gas or allow to get in eyes, on skin, or on clothing. Wash hands, arm and face thoroughly with soap and warm water after use and before eating or smoking. Wash all contaminated clothing with soap and hot water before reuse. Do not contaminate feed or food items. Keep out of reach of children.

Storage

Store in a cool dry and air ventilating warehouse and protected from light. Avoid contacting with food, feed stuff and seed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection

Goggles and full face shield should be used when needed to prevent liquid from face and getting into the eyes.

Skin Protection

Avoid skin contact. Use chemical-resistant gloves, and wear long sleeves and trousers to prevent dermal exposure.

Respiratory Protection

Under normal handling conditions no respiratory protection is needed. However, if needed to prevent respiratory irritation, either a respirator approved for dusts and mists, or one approved for pesticides.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Yellow
Physical state:	flowing liquid
Odor:	not distinct odor.
Melting point	54–58 °C
Vapor pressure:	1.94 mPa (25 °C)
Solubility in water	In water 0.33 mg/l (pH 7, 20 °C).
Solubility in organic solvents:	In acetone, xylene and dichloromethane >800, hexane 48.98 (all in g/l, 20 °C). Readily soluble in benzene, toluene and chloroform. Slightly soluble in petroleum ether and petrol.
Partition coefficient:	Kow logP = 5.2

10. STABILITY AND REACTIVITY

Stability

Very stable in storage; store above 5 °C and below 130 °C. Stable to acids and alkalis.
Slowly decomposed by light; DT₅₀ in water <21 d.

Hazardous Polymerization

Does not occur

Incompatibility

Not compatible with oxidising or reducing agents or with strong alkali.

Hazardous Decomposition Products

Not available

11. TOXICOLOGICAL INFORMATION

Acute Oral: Acute oral LD₅₀ for rats >5000, male mice 3399, female mice 2899, rabbits >5000, beagle dogs >5000 mg/kg.

Acute Dermal: Acute percutaneous LD₅₀ for rabbits >2000 mg/kg.

Irritation: Non-irritating to skin and eyes (rabbits).

Sensitisation: Not available.

Long-term Studies: Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

Effects on Birds: Acute LD₅₀ for mallard ducks 1421 mg/kg b.w. Dietary LC₅₀ (8 d) for bobwhite quail 4187 mg/kg.

Effects on Fish: LC₅₀ (96 h) for rainbow trout 0.14, bluegill sunfish 0.2, channel catfish 0.42 mg/l.

Bees: LD₅₀ (topical) >101.2 µg/bee.

Daphnia: EC₅₀ (48 h) 0.28 mg/l.

Other aquatic spp. : NOEC (30 d) for *Chironomus riparius* 0.138 mg/l.

Worms: EC₅₀ (14 d) >1000 ppm.

Environment Fate Information:

Animals: In rats, the major metabolic routes for pendimethalin involve hydroxylation of the 4-methyl and *N*-1-ethyl groups, oxidation of these alkyl groups to carboxylic acids,

nitro-reduction, cyclisation and conjugation (J. Zulian, *J. Agric. Food Chem.*, 1990, 38, 1743).

Plants: In plants, the 4-methyl group on the benzene ring is oxidised to the carboxylic acid via the alcohol. The amino nitrogen is also oxidised. At harvest time, residues in crops are below the validated sensitivity of the analytical method (0.05 ppm).

Soil/Environment:

In soil, the 4-methyl group on the benzene ring is oxidised to the carboxylic acid via the alcohol; the amino nitrogen is also oxidised. DT₅₀ in soil is 3–4 mo (A. Walker & W. Bond, *Pestic. Sci.*, 1977, 8, 359). Kd ranges from 2.23 (0.01% o.m., pH 6.6) to 1638 (16.9% o.m., pH 6.8) (H. J. Pedersen et al., *Pestic. Sci.*, 1995, 44, 131).

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Pesticide wastes are acutely hazardous. Do not reuse product containers. Dispose product containers, waste containers, residues according local health and environmental regulations.

14. TRANSPORT INFORMATION

UN number: 3082

Proper Shipping Name: Herbicide, Liquid, Toxic, N.O.S. (Pendimethalin), Marine Pollutant.

Class and subsidiary risk: Division 6.1

Packing group: III

Packed in seaworthy packages.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. OTHER INFORMATION

The information contained herein relates only to the specific material identified. We believe that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, express or implied, is made as to the reliability or completeness of the information. Urge persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

Chico Crop Science Co., Ltd.

Date: Jan., 19. 2022