

Version: 1.0 Issue date: Oct. 10. 2022

MATERIAL SAFETY DATA SHEET OF

PENDIMETHALIN 330g/L EC

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Supplier: Shanghai Bosman Industrial Co., Ltd

Street address: No. 1611, North Sichuan Road, Hongkou, Shanghai R.P. China

Tel: + 86 21 63065878

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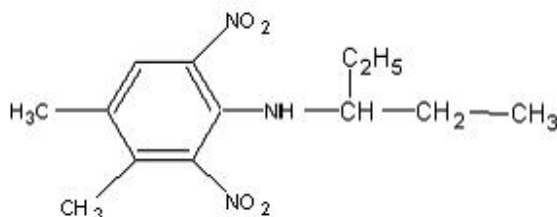
Product name: Pendimethalin 330g/L EC

2. COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredients: Pendimethalin

CAS NO. 40487-42-1

Structural Formula:



Other ingredients determined not to be hazardous

INGREDIENT	CAS NO	PROPORTION(g/L, w/v)
Pendimethalin	40487-42-1	330g/L
other	Not available	Up to 100

3. HAZARDS IDENTIFICATION

Emergence to overview

Yellow liquid with weak aromatic odor

Main hazard:

Pendimethalin is highly toxic to aquatic organisms. Flammable.

Biological hazards:

Skin: Moderate irritant.

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Eye: Moderate irritant.

Inhalation: May cause irritation.

Ingestion: May cause nausea, vomiting, and diarrhoea.

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. Slight eye and skin irritation may occur from contact with the liquid or spray mixture.

4. FIRST AID MEASURES

If swallowed: drink 1-2 glass of water. Induce vomiting by touching back of throat with finger. Never give anything by mouth to an unconscious person.

If in eye: Immediately flush for 15 minutes with large amounts of water

If on skin: Remove contaminated clothing. Wash skin with plenty of soap and warm water. Get medical attention if irritation develops or persists. If signs of intoxication (poisoning) occur, get medical attention immediately.

If inhaled: remove to fresh air

Notes to physician: antidote is atropine

5. FIRE FIGHTING MEASURES

Fire and explosive properties

Auto-ignition temperature: Not applicable

Flash point: N/A

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 other, 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

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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. ACCIDENT RELEASE MEASURES

In case of spill or leak: Stop the leak, if possible. Ventilate the space involved. Absorb, sweep up and 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, arms 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 contact with food, feedstuff 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

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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: Brown

Physical state: liquid

Odor: Aromatic odor

pH: 5.0-8.0

Flammability: Non- flammable

Explosivity: Non-explosive

Density: Aprox. 1.01(20°C)

10. STABILITY AND REACTIVITY

Stability: Very stable in storage; stable to acids and alkalis. Slowly decomposed by light DT₅₀ in water <21d.

Incompatibility: Not available

Hazardous decomposition products: Not available

11. TOXICOLOGICAL INFORMATION

Acute oral: Acute oral LD₅₀ for male rats 1250, female rats 1050, male mice 1620, female mice 1340, rabbits >5000, beagle dogs >5000mg/kg.

Acute dermal: Acute percutaneous LD₅₀ for rabbits >5000mg/kg.

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

Long-term studies: In 2y feeding trails, rats receiving 100mg/kg diet showed no ill-effects.

12. ECOLOGICAL INFORMATION

Effect on birds: Pendimethalin is slightly toxic to birds, with an acute oral LD₅₀ of 1421mg/kg in mallard duck and 8-day dietary LC₅₀ values of greater than 3149mg/kg in bobwhite quail, and greater than 10,900mg/kg in mallard duck.

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Effect on fish: Pendimethalin is highly toxic to fish and aquatic invertebrates. The reported 96-hour LC_{50} for Pendimethalin in bluegill sunfish is $199\mu\text{g/l}$, in rainbow trout is $138\mu\text{g/l}$, and in channel catfish is $420\mu\text{g/l}$. The 48-hour LC_{50} in *Daphnia magna*, a small freshwater crustacean is $280\mu\text{g/l}$. The bioconcentration factor for this compound in whole fish is 5100, indicating a moderate potential to accumulate in aquatic organisms

Effect on bees: Non-toxic to bees, LD_{50} (topical) $>50\mu\text{g/bee}$.

Environmental fate information: Pendimethalin is absorbed by plant and shoots, and inhibits cell division and cell elongation. Once absorbed into plant tissues, translocation is limited and pendimethalin breaks down via oxidation. Pendimethalin is not absorbed by the leaves of grasses, and only very small amounts are taken up by plants from the soil. Residues on crops at harvest are usually below detectable levels (0.05ppm).

13. DISPOSAL CONSIDERATION

General disposal guidance: Do not contaminate water, food, or feed by storage or disposal. Contamination with this product will render water, food or feed unfit for human or animal consumption.

Control disposal: Triple rinse the empty container. Add the rinsing to the spray mixture in the tank. Make the empty rinsed container unsuitable for further use. Dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency.

14. TRANSPORT INFORMATION

UN Number: 3082

UN Proper shipping name: Environment hazardous substance, liquid, n.o.s (Pendimethalin)

Transport hazard class: 9

Packing group: III

15. REGULATORY INFORMATION

Symbol: F, Xn, Xi, N

Indication of danger: Harmful

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Risk phrase(s):

R10 Flammable

R 22 Harmful if swallowed.

R 36 Irritating to eyes

R 50/53 Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S 1/2 Keep locked up and out of the reach of children.

S 16 Keep away from sources of ignition - No smoking.

S 24 Avoid contact with skin.

S 36/39 Wear suitable protective clothing and eye/face protection.

S 29 Do not empty into drains.

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets

16. OTHER INFORMATION

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This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.

--END OF MSDS--