



Material safety data sheet

Pendimethalin 30 + Imazethapyr 2% EC

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1 Manufacturer/information service:

MATERIAL IDENTIFICATION

Product name: Pendimethalin 30 + Imazethapyr 2% EC
Molecular Formula: $C_{13}H_{19}N_3O_4$; $C_{15}H_{19}N_3O_4$
Chemical Family: Aniline derivative, Imidazole derivative
Synonyms: Pendimethalin + Imazethapyr

Supplier:

Shreeji Pesticides Pvt. Ltd.
69/P, Village – Manjusar – 391775, Tal. Savli,
Dist. Vadodara, Gujarat

Phone 02667-264701/02/03/04, 264716/17

Mail info@shreejipesticides.com

Website www.shreejipesticides.com

2 COMPOSITION & INFORMATION ON INGREDIENTS

CAS No	Content (w/w)	Chemical Name
40487-42-1	< 31%	Pendimethalin
81335-77-5	< 3%	Imazethapyr
91-57-6	< 10%	Naphthalene, 2 methyl
91-20-3	< 5%	Naphthalene, 1 methyl
	< 45%	Propriety ingredients

3. HAZARDS IDENTIFICATION

Emergency overview

CAUTION

Keep out of reach of children.
Keep out of reach of domestic animal.
Harmful if swallowed.
Harmful if absorbed through skin.
Causes eye irritation.
Avoid inhalation of dusts/mists/vapours.
Avoid contact with skin, eye and clothing.

See product label for additional precautionary statements.

State of matter : Liquid
Colour : Dark amber.
Odour : Moderate odour, aromatic.

Potential health effects

Primary routes of exposure

Routes of entry for solids and liquids include eye skin contact, ingestion and inhalation.
Routes of entry for gases include inhalation and eye contact. Skin contact may be route of entry for liquefied gases.

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Acute toxicity:

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Slightly toxic after single ingestion. Relatively nontoxic after short-term inhalation. Slightly toxic after short-term skin contact.

Irritation. Corrosion

May cause moderate but temporary irritation to the eyes. May cause slight irritation to the skin. Avoid contact with skin, eyes and clothing.

Sensitization:

Skin sensitizing effects were not observed in animal studies.

Medical conditions aggravated by overexposure:

Individuals with pre-existing diseases of the skin or dermatitis may have increased susceptibility to excessive exposure.

Sign and symptoms of overexposure:

Orange-red coloured urine caused by dye (not associated with methemoglobinemia)
Vomiting may cause aspiration pneumonia due to the ingredients. 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.

Potential environmental effects

Acute toxicity:

Very toxic (acute effect) to fish. Very toxic (acute effect) to aquatic invertebrates. Very toxic (acute effect) to aquatic plants.

Terrestrial toxicity:

Acutely harmful to terrestrial organisms.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Remove patient to well ventilated area and loosen clothing around the neck. **In case of skin contact**

Strip off all contaminated clothing and thoroughly wash body with soap and water. Get medical attention if irritation occurs. Persons providing first aid must wear gloves to avoid self-contamination.

In case of eye contact

Flush eyes with clean water for at least 15 minutes, holding eyelids apart and call a physician. Use safety goggles.

If ingested

Induce vomiting by tickling the back of the throat. NOTE: Never give anything by mouth to an unconscious person. Immediately call a physician.

4.2 Note for the physician

This product has low oral, dermal and inhalation toxicity. It is non-irritating to the eyes and skin. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.



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5. FIRE FIGHTING MEASURES

Flash point	Approx.. 104°C	Information applies to the solvent
Auto ignition	Approx.. 491°C	Information applies to the solvent
Lower explosion limit	Approx.. 0.7% (V)	Information applies to the solvent
Upper explosion limit	Approx.. 5.6% (V)	Information applies to the solvent
Flammability	Not self igniting	

5.1 Extinguishing media

For small fires, use foam, carbon dioxide, dry powder or halon extinguishant. For large fires, use foam or water-fog; avoid use of water jet. Water can be used for cooling of unaffected stock, but avoid the accumulation of polluted run-off from the site. Contain fire control water for later disposal.

5.2 Specific fire fighting method (on small fires)

If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with spray water.

5.3 Specific hazards

Generating poisonous and corrosive fumes. Keep upwind.

5.4 Protective clothing

Fire may produce irritating or poisonous vapours, mists or other products of combustion. Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Wear protective clothing according to operator safety during removal of spillage. Wear eye protection, chemically resistant gloves, boots and coveralls.

6.2 Cleaning

Soak up with absorptive material such as sand, soil, diatomaceous earth, etc. Prevent product from spreading and collect into specially marked, tightly closing containers. Treat contaminated areas with water containing soda or detergent. Collect washings to avoid any contamination of surface and ground water, water supplies and drains. Heavily contaminated soil layers should be removed and disposed of in an approved way.

6.3 Disposal

Spilled product cannot be re-used and must be disposed of by incineration or disposal in a chemical waste disposal facility. If containers cannot be recycled, they should be disposed of together with the waste chemical.

7. HANDLING AND STORAGE

7.1 Handling

Avoid contact with skin and eyes. Ventilation required. Keep away from: sparks, open flame and direct sunlight.

7.2 Storage

Protect from temperatures above: 40 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Engineering measures



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Respiratory protection

Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles.

Eye protection

Safety goggles with side-shields

Hand protection

Suitable chemical resistant safety gloves (e.g. nitrile rubber (0.4mm)).

8.2 Other protective equipment

Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure.

8.3 General safety and hygiene measures

Keep away from food, drink and animal feedstuffs. No eating, drinking or smoking during use. Wash hands and face before breaks and after work.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance Form:	Dark amber, liquid
b)	Specific gravity	1.06 to 1.08 g/ml at 21°C
c)	Freezing point	approx. -13 °C
d)	pH	2.0 -3.0
e)	Boiling point	approx. 250 °C
f)	Vapour pressure	approx. 28 mm/hg approx. 3.724 kPa
g)	Vapour density	Not determined
h)	Partitioning coefficient	Not determined
i)	Kow	Not determined
j)	Solubility in water	emulsifiable

10. STABILITY AND REACTIVITY

10.1 Condition to avoid

Avoid excessive heat and fire

10.2 Material to avoid

Act as mild oxidant in the presence of zinc, brass, Aluminium and cold rolled steel

10.3 Hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity

Oral:

Type of value	:	LD50
Species	:	rat
Value	:	3.506 mg/kg

Inhalation:

Type of value	:	LC50
Species	:	rat
Value	:	> 5.54 mg/l
Exposure limit	:	4 h

Dermal:

Type of value	:	LD50
Species	:	rabbit
Value	:	2.000 mg/kg

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Irritation/ corrosion

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Skin:

Species : rabbit
Result : mildly irritating

Eye:

Species : rabbit
Result : mildly irritating

Sensitization:

Skin sensitization test

Species : guinea pig
Result : skin sensitizing effects were not observed in animal studies.

Genetic toxicity:

Information on Pendimethalin
No mutagenic effects was found in various tests with microorganisms and mammals.

Information on Imazethapyr
No mutagenic effects was found in various tests with microorganisms and mammals.

Carcinogenicity

Information on Pendimethalin
In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.
In long-term studies in rats in which the substance induced thyroid tumors, A marked decrease in body weight gain and an increase in benign thyroid proliferative lesions were observed in the lifetime rat study at the highest dose tested. The substance is not considered to pose a carcinogenic risk at low human exposure levels.

Information on Imazethapyr
In long-term studies in mice and rats in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Information on Pendimethalin
The results of animal studies gave no indication of a impairing effect.
Information on Imazethapyr
The results of animal studies gave no indication of a impairing effect.

Development:

Information on Pendimethalin
No indications of a developmental toxic/ teratogenic effect were seen in animal studies.
Information on Imazethapyr
No indications of a developmental toxic/ teratogenic effect were seen in animal studies.

12.1 ECOLOGICAL INFORMATION

Harmful to aquatic organisms, may cause long-term adverse effects to the aquatic environment. This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

12.1.1 Effects in Birds

Not harmful to birds studied either in acute or 8 day studies.

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12.1.2 Effects on Aquatic Organism (Nontarget species)

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Does not appear to be harmful to either fish or Daphnia magna (water flea).

12.1.3 Effects on other Animals

The contact LD₅₀ for honey bees was >100µg/bee.

12.2 Environmental fate

12.2.1 Breakdown of chemical in soil and groundwater

The formulated product does not leach through the soil. It is weakly to moderately adsorbed and is not lost from the soil through volatilization. Low mobility, low risk of underground water contamination and low bioaccumulation potential.

12.2.2 Half life

60-90 days in the field and 158 days in laboratory conditions. Degradation is mainly by photolysis and microbial action.

12.2.3 Breakdown of chemical in surface water

No information was found.

12.2.4 Breakdown of chemical in vegetation

The formulated product is readily absorbed through the roots and foliage. It is translocated in both xylem and phloem tissues and accumulates in growing points.

13. DISPOSAL CONSIDERATIONS

All drums may be returned to the manufacturer provided they are clean, serviceable, have bungs and plugs in place and are free of surface chemical residues. Unserviceable drums should be triple rinsed with water, have the liner removed (where applicable) and be crushed to prevent re-use. Disposal of drums and liners may be permitted into a tip after approval from the local authority.

13.1 Treatment and disposal methods

Open dumping or burning of this material or its packaging is prohibited. If spilled material cannot be disposed of by use according to label instructions, an acceptable method of disposal is to incinerate in accordance with local, state and national environmental laws, rules, standards and regulations. However, because acceptable methods of disposal may vary by location and regulatory requirements may change, the appropriate agencies should be contacted prior to disposal.

Empty container: Non-returnable containers that held this material should be cleaned, prior to disposal, by triple rinsing. Containers which held this material may be cleaned by being triplerinsed, and recycled, with the rinsate being incinerated. Do not cut or weld metal containers. Vapors that form may create an explosion hazard.

14. TRANSPORTATION INFORMATION

UN Number	NA
Risk Class	9
WHO	III

15. REGULATORY INFORMATION

Regulations:

Information on risk and safety according to the label:

Avoid eyes, skin or clothing contact with the product.

Avoid inhale vapors or mixtures.

Handle the product only under appropriate ventilation

Store in an appropriate packaging, duly closed.

Immediately remove and wash contaminated clothing.

Do not eat, drink or smoke during product handling.

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SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

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When opening a packaging, do it in a way to avoid leaks.
Do not use damaged and/or defective PPE and applying equipment.
Do not wash packaging in lakes, fountains, rivers and other water courses. Avoid water contamination.
Discard the packaging and residues of the product correctly.

16. OTHER INFORMATION

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 this company. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

