

## 1: IDENTIFICATION

<b>Chemical Name</b>	Pendimethalin: 3,4-dimethyl-2,6-dinitro-N-pentan-3-yl aniline Imazethapyr 5-ethyl-2-(4-methyl-5-oxo-4-propan-2-yl-1H-imidazol-2-yl)pyridine-3-carboxylic acid		
<b>Synonyms</b>	Pendimethalin 30% + Imazethapyr 2% EC	<b>Trade Name</b>	<b>IMPENDI 32</b>
<b>Uses</b>	Herbicides	<b>Molecular Formula</b>	C <sub>13</sub> H <sub>19</sub> N <sub>3</sub> O <sub>4</sub> + C <sub>15</sub> H <sub>19</sub> N <sub>3</sub> O <sub>4</sub>
<b>Manufacturer/ Supplier</b>	Ulink AgriTech Pvt. Ltd. Office Nos. 001 And 002, Ground Floor Wing "A" And Nos. 003 And 004 Ground Floor Wing "B", Nyati Tech Park, Wadgaon Sheri, Pune - 411014, Maharashtra		
<b>Emergency Contact</b>	9503095030	<b>E-mail</b>	<a href="mailto:info@agrostar.in">info@agrostar.in</a>

## 2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or Content (w/w)
Pendimethalin	40487-42-1	30.00%
Imazethapyr	81335-77-5	2.00%
Other Ingredients	-	68.00%

## 3: HAZARD IDENTIFICATION

<b>Human Health Hazard:</b>	Harmful if swallowed; Harmful if absorbed through skin; Causes eye irritation Keep out of reach of children.	Keep out of reach of domestic animal.
<b>Environment Hazard:</b>	Very toxic (acute effect) to fish, aquatic invertebrates and aquatic plants Acutely harmful to terrestrial organisms	

## 4: FIRST AID MEASURES

**General:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). Have the product container, label or safety data sheet while seeking medical attention, a poison control center or physician, or going for treatment.

**Inhalation:** Move patients to fresh air. Keep the patients warm and at rest. If person is not breathing then give artificial respiration, preferably mouth-to-mouth if possible. Allow patients to rest. Immediately seek medical attention.

**Ingestion:** Rinse mouth with water. Induce vomiting by tickling the back of the throat. Do not give anything by mouth to an unconscious person. Seek medical attention immediately and show this container or label.

**Skin Contact:** In case of contact with product, wash immediately skin area with plenty of water and soap. Speed in removing material from skin is extremely important. Remove and isolate contaminated clothing and shoes. Call medical attention.

**Eye Contact:** Rinse immediately with plenty of water for several minutes. After 5 minutes remove contact lenses if present and continue rinsing with plenty of water. Continue to rinse with eyelid wide open for at least 15-20 minutes. Seek medical attention if irritation develops.

**Note to 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.

## 5: FIRE FIGHTING MEASURES

**Extinguishing Media:** Water spray, alcohol-resistant foam, dry chemical powder or carbon dioxide

**Unsuitable Extinguishing Media:** Direct water jet as it may spread fire

**Specific Hazards:** In case fire, poisonous and corrosive fumes may produced. keep upwind.

**Hazardous Thermal (de)composition:** Harmful and toxic vapours/gasses may release as combustion products

**Special Procedures:** Move containers away from area if it can be done without risk. If possible remove containers from fire zone, cool them with water spray. Minimize use of water to prevent environmental contamination. Dike and collect water used to fight fire to prevent environmental damage due to runoff. If area is not too heavily exposed to fire, and if conditions permit, let fire burn itself out, since water may increase the contamination hazard. Do not discharge extinguishing water into the drain or water bodies.

**Protection of Fire Fighters:** Wear positive-pressure self-contained breathing apparatus and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

## 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Ventilate spillage area. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from spill/ fumes.

**Environmental Precaution:** Do not allow runoff to enter drains and public waters. Notify the authorities if product enters.

**Methods for Cleaning up:** Clean up any spills as soon as possible, using an absorbent material such as sand, soil, diatomaceous earth etc. Collect and transfer into containers for disposal. Clean contaminated floors and objects thoroughly with water and detergents. Dispose of in accordance with local regulations. If significant amount of product enters into drain, notify the local authorities.

## 7: HANDLING & STORAGE

**Handling:** Do not smoke, drink, or eat during handling. Wash hands using liquid detergent. Wear protective clothing to avoid contact and/or inhalation with the product. Eliminate all sources of ignition from areas where the material is handled or used. Good personal hygiene procedures must be practiced.

**Specific Conditions:** Good local exhaust ventilation. Full face protective mask.

**Storage:** Store in dry, cool, well-ventilated area and out of reach of children. Keep in original container and tightly closed when not in use. Protect from temperatures above 40 °C. Keep away from direct sunlight, open fire and sparks.

## 8: EXPOSURE CONTROL/PERSONAL PROTECTION

**Engineering measures:** Ensure area is well-ventilated, especially confined area. Handle in accordance with good industrial hygiene and safety practice.

**General Protection:** Avoid contact with eyes and skin. While handling the product wear cotton overalls buttoned to the neck and wrist, elbow-length PVC gloves and face shield. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

**Personal Protection:** Follow all precautions and instructions on the label. In all other cases the following recommendations would apply.

**Respiratory Protection:** Always use NIOSH/MSHA approved respiratory protection equipment with a universal filter type including particle filter.

**Skin Protection:** Must wear suitable protective clothing. Long-sleeve shirt, long pants, shoes plus socks. Any clothing or other absorbent material which has been drenched or heavily contaminated must be discarded.

**Hand Protection:** Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton.

**Eye Protection:** Safety goggles, chemical splash goggles or face shield for eyes protection should be used. Safety showers and eyewash should be easily available.

**Others:** Wash clothing before reusing.

## 9: PHYSICAL/CHEMICAL PROPERTIES

**Appearance:** Liquid

**Density[g/cc]:** 1.06 -1.08

**Physical State:** Liquid

**Colour:** Dark amber

**pH:** 2.0 -3.0

**Freezing Point [°C]:** approx. -13

**Solubility in water:** Emulsifiable

**Odour:** Moderate odour, aromatic

**Boiling Point [°C]:** 250

## 10: STABILITY & REACTIVITY

**Stability:** Stable for under normal circumstances

**Conditions to Avoid:** Heat and fire

**Hazardous Decomposition Products:** Harmful and toxic vapours/gasses may release

**Materials to Avoid:** Act as mild oxidant in the presence of zinc, brass, Aluminium and cold rolled steel

## 11: TOXICOLOGICAL INFORMATION

Rat oral LD50 [mg/kg] : 3.506

Rat inhalation LC50 [mg/l/4h] : > 5.54

Skin irritation (rabbit): Mild Irritant

Dermal (rat) LD50 [mg/kg]: 2.00

Skin Sensitization (Guinea Pig): Non-sensitizer

Eye irritation (rabbit): Mild irritant

## 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

**Effects in Birds:** Not harmful to birds studied either in acute or 8 day studies.

**Effects on Aquatic Organism (Non Target species):** Does not appear to be harmful to either fish or Daphnia magna (water flea).

**Bio-accumulation:** Low bioaccumulation potential

**Persistence, Degradability and Mobility in soil:** Product is biodegradable; Low mobility, low risk of underground water contamination

## 13: DISPOSAL CONSIDERATION

**Waste-disposal Procedures:** Dispose of this product only according to the label. Do not contaminate drains, streams, rivers or waterways with the chemical or used container.

**Contaminated Packaging:** Empty remaining contents and the rinse containers thrice before disposal. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers unless they are specifically designed to be refilled. If burnt, avoid inhalation of smoke (if burning permitted).

## 14: TRANSPORT INFORMATION

**UN No.** 3082

**Proper Shipping Name:** Environmentally hazardous substance, N.O.S.

**Land Transport (ADR/RID):** Class-9, Packing Group-III

**Sea Transport (IMO) (IMDG):** Class-9, Packing group-III, Marine Pollutant- Yes

**Air Transport (IATA / ICAO):** Class-9 Packing group-III

## 15: REGULATORY INFORMATION

**Hazard Symbol:** GHS09, Dangerous for the environment (N)

**Risk Phrases:** R23/25, R 51/53

**Safety Phrases:** S 1/2, S 26, S 35

## 16: OTHER INFORMATION

**DISCLAIMER OF LIABILITY** The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

----- END -----