

SAFETY DATA SHEET

SDS REVISIONS: Section 14

PRE-Tector™ PLUS EC Herbicide

DATE OF ISSUE: 02/06/2020

SUPERSEDES: 11/13/2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name PRE-Tector™ PLUS EC Herbicide

Other means of identification

Product Code PST-0018
UN/ID no 3082
Synonyms None
Registration Number(s) 34704-1115

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide. For use in soybeans and field corn. Apply only to CLEARFIELD corn hybrids.
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address
 LOVELAND PRODUCTS, INC.
 P.O. Box 1286
 Greeley, CO 80632-1286

Emergency telephone number

Company Phone Number 1-888-LPI-CUST (574-2878)
Emergency Telephone Chemtrec 1-800-424-9300
 Medical Emergencies: 1-866-944-8565
 US regulations require reporting spills of this material that could reach any surface waters. The toll-free phone number for the US Coast Guard National Response Center is 1-800-424-8802

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4 - (H302)
Acute toxicity - Inhalation (Vapors)	Category 3 - (H331)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1 - (H317)
Reproductive toxicity	Category 1B - (H360)
Aspiration toxicity	Category 1 - (H304)

Label elements



Signal word

DANGER

Hazard statements

H302 - Harmful if swallowed
 H304 - May be fatal if swallowed and enters airways



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- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H319 - Causes serious eye irritation
- H331 - Toxic if inhaled
- H360 - May damage fertility or the unborn child

Precautionary Statements - Prevention

- P201 - Obtain special instructions before use
- P202 - Do not handle until all safety precautions have been read and understood
- P281 - Use personal protective equipment as required
- P264 - Wash face, hands and any exposed skin thoroughly after handling
- P270 - Do not eat, drink or smoke when using this product
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
- P271 - Use only outdoors or in a well-ventilated area
- P272 - Contaminated work clothing should not be allowed out of the workplace
- P280 - Wear protective gloves

Precautionary Statements - Response

- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
- P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P311 - Call a POISON CENTER or doctor/physician
- P330 - Rinse mouth
- P331 - Do NOT induce vomiting
- P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
- P337 + P313 - If eye irritation persists: Get medical advice/attention
- P362 - Take off contaminated clothing and wash before reuse

Precautionary Statements - Storage

- P405 - Store locked up
- P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

- P501 - Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	CAS No	Weight-%	GHS Classification	Trade Secret
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	30 - 60	Asp. Tox. 1 (H304)	*
Pendimethalin	40487-42-1	15 - 40	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	*
N-methyl pyrrolidone	872-50-4	10 - 30	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Repr. 1B (H360D) STOT SE 3 (H335)	*
Imazethapyr	81335-77-5	1 - 5		*

*The exact percentage (concentration) of composition has been withheld as a trade secret.
OSHA Hazard Communication 29 CFR 1910.1200

4. FIRST AID MEASURES

Description of first aid measures

- General advice** Get medical attention if symptoms occur.
- Eye contact** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Skin contact** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Inhalation** Remove to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
- Ingestion** Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
- Self-protection of the first aider** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically. Symptoms may be delayed. Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call 1-866-944-8565 for emergency medical treatment information.

Note to physicians No specific antidote. Treat symptomatically.

Antidotes No data available



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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing agent suitable for type of surrounding fire, Use CO₂, dry chemical, or foam

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. May cause sensitization in susceptible persons. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental precautions

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Cover liquid spill with sand, earth or other non-combustible absorbent material. Use personal protective equipment as required. Dam up. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Incompatible materials

None known based on information supplied.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Appropriate engineering controls

Engineering Controls Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection Dependent on job function. If vapors or dusts exceed acceptable levels, wear a MSHA/NIOSH approved air-purifying respirator with any cartridges/filters approved for pesticides. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection Standard. Wear a supplied air respirator if exposure concentrations are unknown.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Color	Dark amber
Odor	Aromatic
Odor threshold	No data available

<u>Property</u>	<u>Values (Remarks - Method)</u>	
pH	3.34 (1% solution)	
Melting point / freezing point	No data available	
Boiling point	No data available	
Flash point	> 100 °C / > 212 °F (Tag Closed Cup)	
Evaporation rate	No data available	
Flammability (solid, gas)	No data available	No information available
Flammability Limit in Air		
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	
Vapor density	No data available	
Specific Gravity	1.063 g/ml	
Water solubility	Emulsifies	
Solubility in other solvents	No data available	
Partition coefficient	No data available	No data available
Autoignition temperature	No data available	No data available
Decomposition temperature	No data available	No data available
Kinematic viscosity	11.1 @ 20 °C 5.7 @ 40 °C Centistokes	
Dynamic viscosity	No data available	
Explosive properties	No data available	
Oxidizing properties	No data available	

Other Information

VOC Content (%)	No data available
Density	8.87lbs/gal

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.



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10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Strong oxidizing agents.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

Carbon oxides. Nitrogen oxides (NOx).



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11. TOXICOLOGICAL INFORMATION

Acute toxicity of the formulated product:

Oral LD₅₀ 1,750 mg/kg
Dermal LD₅₀ > 5,000 mg/kg
Inhalation (Vapors) LC₅₀ > 2.03 mg/l (rat, 4-hr)

Skin corrosion/irritation Moderately irritating to the skin.
Serious eye damage/eye irritation Moderately irritating to the eye.
Sensitization Sensitizer. Mouse.

Chemical Name	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Solvent naphtha (petroleum), heavy aromatic	> 5000 mg/kg (Rat)	> 2 mL/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h
Pendimethalin	= 1050 mg/kg (Rat)	= 2260 mg/kg (Rabbit)	
N-methyl pyrrolidone	= 3914 mg/kg (Rat)	= 8 g/kg (Rabbit)	= 3.1 mg/L (Rat) 4 h
Imazethapyr	> 5 g/kg (Rat)		

Chemical Name	Skin corrosion/irritation	Eye damage/irritation	Respiratory sensitization	Skin sensitization
Pendimethalin 40487-42-1				Category 1
N-methyl pyrrolidone 872-50-4	Category 2	Category 2		

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.
ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
NTP (National Toxicology Program)
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.
Target Organ Effects blood, Central nervous system, Eye damage/irritation, kidney, liver, Skin.
Aspiration hazard No information available.

Information on likely routes of exposure

Product Information No data available
Inhalation No data available.
Eye contact No data available.
Skin contact No data available.
Ingestion No data available.



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12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Solvent naphtha (petroleum), heavy aromatic 64742-94-5	EC50 2.5 mg/L 72 h Skeletonema costatum	LC50 19 mg/L 96 h Pimephales promelas LC50 2.34 mg/L 96 h Oncorhynchus mykiss LC50 1740 mg/L 96 h Lepomis macrochirus LC50 45 mg/L 96 h Pimephales promelas LC50 41 mg/L 96 h Pimephales promelas	EC50 0.95 mg/L 48 h Daphnia magna
Pendimethalin 40487-42-1	-	LC50 0.00019 mg/L 96 h Pimephales promelas LC50 0.14 mg/L 96 h Oncorhynchus mykiss LC50 0.2 mg/L 96 h Lepomis macrochirus	-
N-methyl pyrrolidone 872-50-4	EC50 500 mg/L 72 h Desmodosmus subspicatus	LC50 832 mg/L 96 h Lepomis macrochirus LC50 1072 mg/L 96 h Pimephales promelas LC50 1400 mg/L 96 h Poecilia reticulata LC50 4000 mg/L 96 h Leuciscus idus	EC50 4897 mg/L 48 h Daphnia magna

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Wastes may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at <http://www.acrecycle.org/>. Do not contaminate water, food or feed by storage or disposal.

Contaminated packaging

Do not reuse container.



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14. TRANSPORT INFORMATION

Note: LESS THAN 185 GALLONS NOT REGULATED BY DOT

DOT

UN/ID no	3082
Proper shipping name	RQ ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHALENE)
U.S. Surface Freight Classification:	COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: CLASS: 60)
Hazard Class	9
Packing Group	III
Reportable Quantity (RQ)	100
Emergency Response Guide Number	171



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15. REGULATORY INFORMATION

<u>NFPA</u>	Health hazards 4	Flammability 1	Instability 0	Physical and Chemical Properties - Personal protection X	
<u>HMIS</u>	Health hazards 2	Flammability 1	Physical hazards 0		
	0 - Least	1 - Slight	2 - Moderate	3 - High	4 - Severe

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Pendimethalin - 40487-42-1	1.0
N-methyl pyrrolidone - 872-50-4	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
N-methyl pyrrolidone - 872-50-4	Developmental

US EPA Waste Number U165

U.S. EPA Label Information

EPA Registration Number 34704-1115

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

WARNING

Difference between SDS and EPA Pesticide label

Harmful if swallowed. Causes substantial but temporary eye injury. Wear goggles, or a protective face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.



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16. OTHER INFORMATION

Prepared By Product Stewardship and Regulatory Affairs

Reviewed By Safety, Health and Environment

Issue Date 02/06/2020

Revision Date 11/13/2019

Revision Note

1 SDS sections updated

PRE-Tector™ PLUS EC Herbicide is a trademark of Loveland Products, Inc.

Disclaimer

This safety data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS, INC. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.

End of Safety Data Sheet