

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name LADEM AT

Other means of identification

Product Code PST-0059
Synonyms None
Registration Number(s) 34704-1070

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide.
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 - Inhalation (Vapors)	Category 2 - (H330)
Skin sensitization	Category 1 - (H317)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)

Label elements



Signal word

DANGER

Hazard statements

H317 - May cause an allergic skin reaction
H330 - Fatal if inhaled
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary Statements -

P260 - Do not breathe dust/fume/gas/mist/vapors/spray



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Prevention

P271 - Use only outdoors or in a well-ventilated area
 P284 - Wear respiratory protection
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P280 - Wear protective gloves

Precautionary Statements - Response

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
 P310 - Immediately call a POISON CENTER or doctor/physician
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
 P363 - Wash contaminated clothing before reuse

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

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

Hazards not otherwise classified (HNOC)

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	CAS No	Weight-%	GHS Classification	Trade Secret
ATRAZINE TECHNICAL	1912-24-9	15 - 40	Skin Sens. 1 (H317) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	*
S-Metolachlor Technical	87392-12-9	10 - 30	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	*
Other ingredients	NOCAS	10 - 30		*
Atrazine related compounds	NOCAS	0.1 - 1		*

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



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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.

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. PARA UNA EMERGENCIA MÉDICA QUE INVOLUCRE ESTE PRODUCTO, LLAME: 1-866-944-8565. Lleve el envase, la etiqueta o el nombre del producto cuando busque atención médica.

Note to physicians No tiene antídoto específico. Suministre tratamiento sintomático y de soporte.

Antidotes No data available

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.



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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. 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.

Methods for cleaning up Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material.

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.

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.

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.

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. Wash contaminated clothing before reuse.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Fluid paste
Appearance	Viscous liquid
Color	White
Odor	Latex Paint
Odor threshold	No data available

<u>Property</u>	<u>Values (Remarks - Method)</u>
pH	6.1 (1% solution)
Melting point / freezing point	No data available
Boiling point	102 °C / 216 °F
Flash point	> 100 Abel-Pensky Closed Cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Flammability Limit in Air	
Upper flammability limit:	No data available
Lower flammability limit:	No data available
Vapor pressure	2.9 x 10 ⁽⁻⁷⁾ mmHg (Atrazine); 2.8 x 10 ⁽⁻⁵⁾ mmHg (S-Metolachlor)
Vapor density	No data available
Specific Gravity	1.1082 g/ml
Water solubility	No data available
Solubility in other solvents	Atrazine: 33 mg/ @ 20C; S-Metolachlor: 0.48 g/l @ 25C
Partition coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Other Information

VOC Content (%)	No data available
Density	9.248lbs/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

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.



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11. TOXICOLOGICAL INFORMATION

Acute toxicity of the formulated product:

Oral LD₅₀ 3271 mg/kg
Dermal LD₅₀ > 2020 mg/kg
Inhalation (Vapors) LC₅₀ > 1.6 mg/l (4-hr)

Chemical Name	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
ATRAZINE TECHNICAL	= 672 mg/kg (Rat)	> 5000 mg/kg (Rat) > 2000 mg/kg (Rat) = 7500 mg/kg (Rabbit)	= 5200 mg/m ³ (Rat) 4 h
S-Metolachlor Technical	= 2267 mg/kg (Rat)		

Chemical Name	Skin corrosion/irritation	Eye damage/irritation	Respiratory sensitization	Skin sensitization
ATRAZINE TECHNICAL 1912-24-9				Category 1
S-Metolachlor Technical 87392-12-9				Category 1

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.

Chemical Name	ACGIH	IARC	NTP	OSHA
ATRAZINE TECHNICAL 1912-24-9	A3	Group 3	-	-

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Not classifiable as a human carcinogen

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 liver effects.

Target Organ Effects Central nervous system, Eye damage/irritation, liver, Respiratory system, Skin.

Aspiration hazard No information available.

Information on likely routes of exposure

Product Information Dermal Inhalation

Inhalation No data available.

Eye contact Mildly irritating.

Skin contact Slightly irritating.

Ingestion No data available.



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12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
ATRAZINE TECHNICAL 1912-24-9	EC50 0.03 mg/L 72 h Desmodemus subspicatus EC50 0.014 - 0.027 mg/L 96 h Desmodemus subspicatus EC50 0.072 mg/L 72 h Desmodemus subspicatus EC50 0.13 mg/L 96 h Pseudokirchneriella subcapitata EC50 0.2 mg/L 72 h Pseudokirchneriella subcapitata EC50 0.004 mg/L 96 h Pseudokirchneriella subcapitata EC50 0.0096 - 0.07 mg/L 72 h Pseudokirchneriella subcapitata EC50 0.0929 mg/L 72 h Pseudokirchneriella subcapitata	LC50 4.5 - 11 mg/L 96 h Oncorhynchus mykiss LC50 3 - 6.75 mg/L 96 h Oncorhynchus mykiss LC50 16 mg/L 96 h Lepomis macrochirus LC50 8 mg/L 96 h Lepomis macrochirus LC50 23.999 mg/L 96 h Lepomis macrochirus LC50 19 mg/L 96 h Cyprinus carpio LC50 15.7 - 20.2 mg/L 96 h Cyprinus carpio LC50 5.4 - 8.4 mg/L 96 h Lepomis macrochirus LC50 4.1 mg/L 96 h Pimephales promelas LC50 4.3 mg/L 96 h Poecilia reticulata	EC50 5.2 - 8.1 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.

14. TRANSPORT INFORMATION

DOT

UN/ID no

Not regulated

Proper shipping name

Not regulated

U.S. Surface Freight Classification:

COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: CLASS: 60)



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15. REGULATORY INFORMATION

<u>NFPA</u>	Health hazards 4	Flammability 0	Instability 0	Physical and Chemical Properties - Personal protection X	
<u>HMIS</u>	Health hazards 3	Flammability 0	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 %
ATRAZINE TECHNICAL - 1912-24-9	1.0
Ethylene glycol - 107-21-1	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, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylene glycol 107-21-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. EPA Label Information

EPA Registration Number 34704-1070

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:

CAUTION

Difference between SDS and EPA Pesticide label

Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. This product may cause skin sensitization reactions in some people.



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16. OTHER INFORMATION

Prepared By Registrations and Regulatory Affairs

Reviewed By Environmental Health and Safety

Issue Date 04/19/2018

Revision Date 04/19/2018

Revision Note
NEW

LADEM AT is a trademark of Loveland Products, Inc.

Disclaimer

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End of Safety Data Sheet