



Material Safety Data Sheet

NFPA	WHMIS	Personal Protective Equipment	Transport Symbol

Preparation Date 06-May-2010

Revision Date: 06-May-2010

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: ADM L-Lysine HCl

Product Code: 035150

Synonyms:
L-Lys-HCl, IFN: 5-19-118

Use of the Substance / Preparation:
Animal Feed

Emergency Telephone Number:
Chemtrec 1-800-424-9300

Contact Manufacturer:
Archer Daniels Midland Company
4666 Faries Parkway
Decatur, IL 62526, USA
Telephone Number: 217 424-5200

2. HAZARDS IDENTIFICATION

Emergency Overview

Product dust may be irritating to eyes, skin and respiratory system. Fine dust dispersed in air may ignite.

Appearance
Tan

Physical State
Granules

Odor
Fermentation

Potential Health Effects

Principle Routes of Exposure
Acute Effects

Eye contact, Skin contact, Inhalation.

Eyes
Skin
Inhalation
Ingestion

Contact with eyes may cause irritation.
May cause slight skin irritation
Dust may cause irritation of respiratory tract.
Health injuries are not known or expected under normal use. Not for human consumption.

Chronic Effects
Main Symptoms
Aggravated Medical Conditions
Potential Environmental Effects
Toxicological information

None known.
No information available.
Respiratory disorders . Skin disorders.
See Section 12 for additional ecological information.
See Section 11 for additional toxicological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name L-lysine monohydrochloride
Formula C₆H₁₄N₂O₂ - HCl

Non-hazardous Components

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
L-Lysine monohydrochloride	657-27-2	100	-

4. FIRST AID MEASURES

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids
Skin Contact Wash off immediately with soap and plenty of water.
Inhalation Move to fresh air
Ingestion Clean mouth with water and afterwards drink plenty of water. Consult a physician if necessary.
Notes to Physician Treat symptomatically
Protection of First-aiders Use personal protective equipment.

5. FIRE-FIGHTING MEASURES

Flammable Properties The product is capable of burning but not readily ignited. Risks of ignition followed by flame propagation or secondary explosions should be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

Suitable Extinguishing Media Water. Carbon dioxide (CO₂). Dry chemical.

Unsuitable Extinguishing Media None known.

Hazardous Combustion Products Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), HCl.

Explosion Data

Sensitivity to mechanical impact No information available.

Sensitivity to static discharge Yes (as dust).

Specific Hazards Arising from the Chemical None known

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health 0

Stability and Reactivity 0

Flammability 1

Physical hazard -



6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation
Environmental Precautions	Prevent further leakage or spillage if safe to do so
Methods for Clean-up	Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid dust formation in confined areas. Fine dust dispersed in air may ignite. Refer to NFPA 61, "Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities".
Storage	Keep containers dry and tightly closed to avoid moisture absorption and contamination.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

Chemical Name	ACGIH TLV	OSHA PEL	MEXICO	NIOSH IDLH	OSHA
Particulates not otherwise regulated	TWA: 10 mg/m ³	TWA: 15 mg/m ³ (total) 5 mg/m ³ (respirable)			TWA: 10 mg/m ³ TWA: 3 mg/m ³

Engineering Measures	Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits. However it is the duty of the user to verify this and follow given exposure limits at the workplace.
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Personal Protective Equipment

Eye/face Protection.	Safety glasses with side-shields.
Skin and Body Protection	Long sleeved clothing. Protective gloves.
Respiratory Protection	In case of insufficient ventilation wear suitable respiratory equipment

General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice
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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Tan	Physical State	Granules
Odor	Fermentation	Odor Threshold	No information available
Flash Point	Not applicable	Autoignition Temperature	No data available
Boiling point	Not applicable	Melting/Freezing Point	Approx. 260°C / 500°F
Flammability Limits in Air	No information available	Explosion Limits	No information available
Minimum Ignition Temperature	460°C / 860°F		
pH	Neutral (10 g/l H ₂ O)	Vapor Pressure	Not applicable
Solubility	Insoluble in Alcohol and Ether	Water Solubility	Soluble (500-600 g/liter in H ₂ O at 25°C)
Evaporation Rate	Not applicable	Vapor Density	Not applicable
Specific Gravity	No information available	Oxidizing Properties	No information available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Heat, flames and sparks
Incompatible Materials	No materials to be especially mentioned
Hazardous Decomposition Products	None known.
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

LD50 Oral: 10000 mg/kg (rat)
LD50 Dermal: No information available
LC50 Inhalation: No information available

Chronic Effects

Carcinogenicity

There are no known carcinogenic chemicals in this product.

OSHA: (Occupational Safety & Health Administration)

Not Listed

ACGIH: (American Conference of Governmental Industrial Hygienists)

Not Listed

NTP: (National Toxicity Program)

Not Listed

Mexico: (Official Mexican Norm NOM-010-STPS-1999)

Not Listed

IARC: (International Agency for Research on Cancer)

Not Listed

Subchronic Toxicity	No information available.	Irritation	No information available.
Corrosivity	No information available.	Sensitization	No information available.
Neurological Effects	No information available.	Mutagenic Effects	No information available.
Reproductive Effects	No information available.	Developmental Effects	No information available.
Teratogenicity	No information available.	Target Organ Effects	Respiratory system, Eyes, Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Contains no substances known to be hazardous to the environment. Contains no substances known to be not degradable in waste water treatment plants..

Persistence/Degradability	Readily biodegradable.
Bioaccumulation/ Accumulation	Not applicable.
Mobility	Soluble in water

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Can be landfilled or incinerated, when in compliance with local regulations. Dispose of in compliance with the laws and regulations pertaining to this product in your jurisdiction.

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

Domestic transport regulations (USA)

DOT Not regulated

Domestic transport regulations (Canada)

TDG Not regulated

Domestic transport regulations (Mexico)

MEX Not regulated

International transport regulations

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

The components of this product are reported in the following inventories:

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	AICS	ENCS	CHINA	PICCS	KECL	NZLoC
L-Lysine monohydrochloride	Yes	Yes	No	Yes 211-519-9	No	Yes	Yes 1-215 9-1633	Yes	Yes	Yes KE-22666	Yes

Legend

DSL - Domestic Substance List (Canada). EINECS - European Inventory of Existing Commercial Chemical Substances (EU). AICS - Australian Inventory of Chemical Substances (Australia). ENCS - Existing and New Chemical Substances (Japan). PICCS - Inventory of Chemicals and Chemical Substances (Philippines). KECL - Korean Existing and Evaluated Chemical Substances (Korea). NZLoC - New Zealand Inventory of Chemicals (New Zealand). TSCA - Toxic Substances Control Act, Section 8(b) Inventory (USA).

USA**Federal Regulations****Ozone Depleting Substances:**

No Class I or Class II material is known to be used in the manufacture of, or contained, in this product.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not known to contain any chemicals which are subject to the reporting requirements of the Act or regulations contained in 40 CFR 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product is not known to contain any HAPS.

State Regulations**California Proposition 65**

Proposition 65 chemicals are not expected to be found in this product above those naturally present in their agricultural source. Proposition 65 exempts naturally occurring listed chemicals from an obligation to label.

State Right-to-Know

No known components subject to "Right-To-Know" legislation in the following States:

Chemical Name	Weight %	Illinois	Massachusetts	New Jersey	Pennsylvania	Rhode Island
L-Lysine monohydrochloride	100	No	No	No	No	No

Canada**WHMIS Product Classification**

Not a WHMIS controlled product.

WHMIS Ingredient Disclosure List IDL

No known component is listed on the WHMIS ingredients disclosure list.

(NPRI) Canadian National Pollutant Release Inventory

No known component is listed on NPRI.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

Mexico

Mexico - Grade

Minimum risk, Grade 0

16. OTHER INFORMATION

Prepared By	ADM Bio-Products
Preparation Date	06-May-2010
Revision Date:	06-May-2010
Revision Summary	Implementation into software system.

The information provided on this (M)SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of (M)SDS