



Material Safety Data Sheet

| NFPA | WHMIS | Personal Protective Equipment | Transport Symbol |
|------|-------|-------------------------------|------------------|
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Preparation Date 08-Dec-2009

Revision Date: 08-Dec-2009

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: CLIN-CAT 830 Corn Starch

Product Code: 028830

Synonyms:
Corn Starch, Cationic Corn Starch

Use of the Substance / Preparation:
For industrial use only

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

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

2. HAZARDS IDENTIFICATION

Emergency Overview

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

Appearance White

Physical State Powder

Odor Odorless

Potential Health Effects

Principle Routes of Exposure

Eye contact, Skin contact, Inhalation, Ingestion.

Acute Effects

Eyes

Contact with eyes may cause irritation.

Skin

May cause slight skin irritation

Inhalation

Dust may cause irritation of respiratory tract.

Ingestion

Health injuries are not known or expected under normal use.

Chronic Effects

None known.

Aggravated Medical Conditions

Skin disorders. Respiratory disorders .

Potential Environmental Effects

See Section 12 for additional ecological information.

Toxicological information

See Section 11 for additional toxicological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name Starch
Chemical Family Carbohydrate

Non-hazardous Components

| Chemical Name | CAS-No | Weight % | North American Hazard Indicator |
|--------------------|------------|----------|---------------------------------|
| Starches, cationic | 56780-58-6 | 100 | - |

4. FIRST AID MEASURES

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

Skin Contact Wash off with warm water and soap.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Clean mouth with water and afterwards drink plenty of water. Immediate medical attention is not required.

Notes to Physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties

Fine dust dispersed in air may ignite. 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

Foam. Water. Dry chemical. Carbon dioxide (CO₂). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None known.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO₂).

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 Environmental Precautions Methods for Clean-up

Use personal protective equipment. Avoid dust formation.
Local authorities should be advised if significant spillages cannot be contained.
Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

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| Handling | Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition. Refer to NFPA 61, "Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities". |
| Storage | Keep containers tightly closed in a dry, cool and well-ventilated place. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

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

Legend

ACGIH TLV - American Conference of Governmental Industrial Hygienists Threshold Limit Values. OSHA PEL - Occupational Safety and Health Administration Permissible Exposure Limits . TWA - Time weighted average.

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| 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

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| Eye/face Protection. | Safety glasses with side-shields. |
| Skin and Body Protection | Long sleeved clothing Protective gloves if needed |
| Respiratory Protection | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. |

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

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|-------------------------------------|--------------------------|---------------------------------|--------------------------|
| Appearance | White | Physical State | Powder |
| Odor | Odorless | Odor Threshold | No information available |
| Flash Point | No information available | Autoignition Temperature | No information available |
| Boiling point | No information available | Melting/Freezing Point | No information available |
| Flammability Limits in Air | No information available | Explosion Limits | No information available |
| Minimum Ignition Temperature | 380°C / 716°F | | |
| pH | 6.0 | Vapor Pressure | No information available |
| Water Solubility | Insoluble | Specific Gravity | 1.5 |
| Evaporation Rate | No information available | Vapor Density | No information available |

10. STABILITY AND REACTIVITY

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| Chemical Stability | Stable under normal conditions |
| Conditions to Avoid | Heat, flames and sparks. Avoid dust formation. |
| Incompatible Materials | Strong oxidizing agents. |
| Hazardous Decomposition Products | No information available.. |
| Possibility of Hazardous Reactions | None under normal processing |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

LD50 Oral: No information available
LD50 Dermal: No information available
LC50 Inhalation: No information available

Toxicology data for the components

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.

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|--------------------------------------|------------------------|
| Persistence/Degradability | Readily biodegradable. |
| Bioaccumulation/ Accumulation | Not applicable. |
| Mobility | Insoluble in water. |

13. DISPOSAL CONSIDERATIONS

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| Waste Disposal Methods | 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 |
|--------------------|------|----------------|------|--------|--------|------|------|-------|-------|------|-------|
| Starches, cationic | Yes | Yes yes Yes | No | No | No | Yes | No | Yes | Yes | No | Yes |

Legend

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

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

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|-----------------------------------|----|
| 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 |
|--------------------|----------|----------|---------------|------------|--------------|--------------|
| Starches, cationic | 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

No information available.

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| 16. OTHER INFORMATION |
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| Prepared By | ADM Corn Processing |
| Preparation Date | 08-Dec-2009 |
| Revision Date: | 08-Dec-2009 |
| Revision Summary | Implementation into software system. |

Disclaimer

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