



# Safety Data Sheet

Original Preparation Date: 26-Apr-2011

Revision Date: 28-Dec-2016

Revision Number: 1

## 1. Identification

**Product Name:**

CitriStim® - Pichia Guilliermondii Yeast

**Synonyms:**

AAFCO: 36.2 Extracted Citric Acid Presscake

CFIA: Schedule IV, 5.4.17 "Citric acid fermentation presscake meal extracted" IFN: 5-06-162

**Product Code:**

550310AJ US

**Use of the Substance / Preparation:**

Animal feed ingredient

**Contact Manufacturer:**

ADM Animal Nutrition™

1000 North 30th St.

Quincy, IL 62301

United States

Tel. (+1) 217-222-7100 (business hours)

**Canadian Initial Supplier:**

ADM Animal Nutrition 842 Juliana Drive

Woodstock, Ontario

N4S 0A8 CANADA

TEL: 519-539-2091

## 2. Hazard(s) identification

### Emergency Overview

Warning. May form combustible dust concentrations in air (during processing and handling). Product dust may cause mild, mechanical irritation.

**Appearance**

Tan

**Physical State**

Powder

**Odor**

Mild

**This product IS classified as hazardous according to the criteria contained in the Hazard Communication Standard 29 CFR 1910.1200 (known as HCS 2012) and the Hazardous Products Regulations SOR/2015-17 (known as WHMIS 2015).**

OSHA Defined Hazard(s) Combustible Dust

HPR Defined Hazard(s) Combustible Dust

Signal Word: Warning

Hazard Statement(s): May form combustible dust concentrations in air (during processing and handling)

## 3. Composition/information on ingredients

Chemical nature of the preparation Substance

**Description**

Extracted Citric Acid Presscake

**Non-hazardous Components**

Chemical Name	CAS-No	Weight %	North American Substance Hazard Class
Extracted Citric Acid Presscake	no CAS	100	None known

## 4. First-aid measures

### Description of first aid measures

**Eye Contact** Rinse thoroughly with plenty of water, also under the eyelids.

**Skin Contact** Wash off with warm water and soap. If skin irritation persists, call a physician.

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

**Ingestion** When symptoms persist or in all cases of doubt seek medical advice.

### Most important symptoms and affects, both acute and delayed

**Eyes** Contact with eyes may cause mechanical irritation.

**Skin** Product dust may cause mild, mechanical irritation.

**Inhalation** May cause irritation of respiratory tract. May cause irritation to the mucous membranes.

**Ingestion** Not for human consumption. Oral exposure is not anticipated under normal working conditions.

### Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Special forms of treatment and immediate medical attention are not specified. Treat Symptomatically.

## 5. Fire-fighting measures

### Flammable Properties

Fine dust dispersed in air may ignite. Risk of ignition followed by flame propagation or secondary explosions should be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

### Extinguishing media

**Suitable Extinguishing Media** Dry chemical. Foam. Water spray. Carbon dioxide (CO<sub>2</sub>). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** No information available.

### Special hazards arising from the substance or mixture

**Hazardous Combustion Products** Carbon dioxide (CO<sub>2</sub>), Carbon monoxide (CO), Acrolein, Nitrogen oxides (NO<sub>x</sub>).

**Specific Hazards Arising from the Chemical** None known.

**Sensitivity to mechanical Impact** No information available.

**Sensitivity to static discharge** Yes. (as dust).

**Further information** Fine dust dispersed in air may ignite.

### Advice for fire-fighters

**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. Use personal protective equipment.

### NFPA

Health 0  
Flammability 1

Stability and Reactivity 0  
Physical hazard None known



## 6. Accidental release measures

### Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid dust formation. Use personal protective equipment. For personal protection see section 8. Avoid sparks, flames, static electricity discharges, etc. in the presence of dust.

### Environmental Precautions

Prevent further leakage or spillage if safe to do so.

### Methods and Materials for Containment and Cleaning Up

Shovel or sweep up. For disposal information see section 13.

## 7. Handling and storage

### Handling

Avoid dust formation in confined areas. Provide appropriate exhaust ventilation at places where dust is formed. Ensure adequate ventilation. 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. Containers should remain sealed until the time of use. In order to reduce the possibility of product contamination, it is recommended to use the entire container once opened.

## 8. Exposure controls/Personal protection

### Exposure Limits

This product is not known to contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. As an airborne dust, exposure limits pertaining to "particulates not otherwise regulated" have been provided below.

### Biological Limit Values

No biological limit values have been listed for the component(s) of this product.

<b>Appropriate Engineering Controls</b>	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.
<b>General Hygiene Considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

### Personal Protective Equipment

#### Eye/face Protection.

Safety glasses with side-shields.

#### Skin and Body Protection

Protective gloves.

#### Respiratory Protection

No personal respiratory protective equipment normally required. In the case of dust or aerosol formation use respirator with an approved filter.



## 9. Physical and chemical properties

<b>Appearance</b>	Tan
<b>Physical State</b>	Powder
<b>Odor</b>	Mild
<b>Odor Threshold</b>	No information available
<b>pH</b>	No information available
<b>Flash Point</b>	Not applicable
<b>Autoignition Temperature</b>	288 °C / 550 °F
<b>Boiling point</b>	Not applicable
<b>Melting/Freezing Point</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Oxidizing Properties</b>	No information available
<b>Water Solubility</b>	Insoluble
<b>Solubility(ies)</b>	
<b>Evaporation Rate</b>	Not applicable
<b>Vapor Pressure</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Specific Gravity / Relative Density</b>	No information available
<b>Viscosity (kinematic)</b>	No information available
<b>Partition Coefficient (n-octanol/water)</b>	No information available
<b>Explosive Properties</b>	Kst = 117 bm/s (moderately explosible) MIE = 42 mJ MIT = 500 °F / 260 °C

## 10. Stability and reactivity

**Stability** Stable.

**Possibility of Hazardous Reactions** Hazardous polymerization does not occur.

**Conditions to Avoid** Avoid dust formation. Heat, flames and sparks.

**Incompatible Materials** No materials to be especially mentioned.

**Hazardous Decomposition Products** Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO). Acrolein. Nitrogen oxides (NO<sub>x</sub>).

## 11. Toxicological information

### Information on toxicological effects

<b>Acute toxicity</b>	Not classified.
<b>Skin corrosion/irritation</b>	Not classified.
<b>Serious eye damage/eye irritation</b>	Not classified.
<b>Respiratory or skin sensitisation</b>	Not classified.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Not classified.
<b>Reproductive toxicity</b>	Not classified.
<b>STOT - single exposure</b>	Not classified.
<b>STOT - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not classified.

### Potential health effects

<b>Eyes</b>	Contact with eyes may cause mechanical irritation.
<b>Skin</b>	Product dust may cause mild, mechanical irritation.
<b>Inhalation</b>	May cause irritation of respiratory tract. May cause irritation to the mucous membranes.
<b>Ingestion</b>	Not for human consumption. Oral exposure is not anticipated under normal working conditions.

## 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.

<b>Persistence/Degradability</b>	No information available
<b>Mobility</b>	Insoluble in water.
<b>PBT and vPvB assessment</b>	No information available.
<b>Other adverse effects</b>	Nothing specific known.

## 13. Disposal considerations

Whenever possible, as rules and regulations allow, please recycle or manage materials to minimize waste.

<b>Waste Disposal Methods</b>	Dispose of in compliance with the laws and regulations pertaining to this product in your jurisdiction.
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## 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

As an approved animal feed, this product is exempted from the following inventories: EU (EINECS). U.S.A. (TSCA). Canada (DSL).

### 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.

##### **CERCLA/SARA 103-302**

Sections 103-302 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 103-302.

##### **SARA 311/312 Hazardous Categorization**

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	Yes (when in the form of combustible dust)
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

##### **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 63)**

This product is not known to contain any HAPS.

### State Regulations

#### **State Right-to-Know**

No known components subject to "Right-To-Know" legislation in the following States. Massachusetts. Minnesota. New Jersey. Pennsylvania. Rhode Island.

### Canada

#### **(NPRI) Canadian National Pollutant Release Inventory**

No known component is listed on NPRI.

### Mexico

Mexico - Grade

Slight risk, Grade 1

## 16. Other information

**Prepared By:** ADM Animal Nutrition™  
**Original Preparation Date:** 26-Apr-2011  
**Revision Date:** 28-Dec-2016  
**Revision Number:** 1  
**Reason for revision:** New SDS format.

### Abbreviations and acronyms

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road  
 AICS - Australian Inventory of Chemical Substances (Australia)  
 CAS - Chemical Abstract Service  
 CHINA - Chinese Inventory of Existing Chemical Substances (China)  
 DSL - Domestic Substance List (Canada)  
 NDSL - Non Domestic Substances List (Canada)  
 EC - European Commission  
 EINECS - European Inventory of Existing Commercial Chemical Substances (EU)  
 ELINCS - European List of Notified Chemical Substances (EU)  
 ENCS - Existing and New Chemical Substances (Japan) / ISHL - Industrial Health and Safety Law (Japan)  
 IATA - International Air Transport Association Dangerous Goods Regulations  
 ICAO - International Civil Aviation Organisation  
 IMDG - International Maritime Dangerous Goods Code  
 IMO - International Maritime Organization  
 KECL - Korean Existing and Evaluated Chemical Substances (Korea)  
 NZIoC - New Zealand Inventory of Chemicals (New Zealand)  
 PICCS - Inventory of Chemicals and Chemical Substances (Philippines)  
 REACH - Registration, Evaluation, Authorisation and Restriction of Chemical substances  
 TSCA - Toxic Substances Control Act, Section 8(b) Inventory (USA)  
 TWA - Time Weighted Average: Average concentration that should not be exceeded during a work day (usually 8-hours)

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**The information provided on this 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.**

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