



# Safety Data Sheet

Revision Date: 07-Oct-2020

Revision Number: 2

## 1. Identification

**Product Name:**  
CitriStim® - Pichia Guilliermondii Yeast  
**Synonyms:**  
AAFCO: 36.2 Extracted Citric Acid Presscake

**Product Code:**  
550310AJ US  
**Use of the Substance / Preparation:**  
Animal Feed Ingredient.

**Supplier:**  
ADM Animal Nutrition™  
1000 North 30th St.  
Quincy, IL 62301  
United States  
Tel. (+1) 217-222-7100 (business hours)

## 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

### Classification according to 29 CFR 1910, amended to conform to the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS):

OSHA Defined Hazard(s)	Combustible Dust
HPR Defined Hazard(s)	Combustible Dust

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

Components may be present which contribute to a potential combustible dust hazard, but are not disclosed since they do not pose health hazards. If additional composition information is needed, please consult with your ADM sales or technical contact.

## 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.

Chemical Name	ACGIH TLV	OSHA PEL	Mexico	NIOSH
Particulates not otherwise regulated	TWA: 10 mg/m <sup>3</sup> inhalable particles, recommended TWA: 3 mg/m <sup>3</sup> respirable particles, recommended	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction	not listed	not listed

### Biological Limit Values

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

**Appropriate Engineering Controls** 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.

**General Hygiene Considerations** 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>Partition Coefficient (n-octanol/water)</b>	No information available

**Explosive Properties** 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

**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.

## 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** No information available  
**Mobility** Insoluble in water.  
**PBT and vPvB assessment** No information available.  
**Other adverse effects** Nothing specific known.

## 13. Disposal considerations

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

**Waste Disposal Methods** Dispose of in compliance with the laws and regulations pertaining to this product in your jurisdiction.

## 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**

Refer to the OSHA hazard classification(s) provided in section 2 of this SDS.

**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.

**16. Other information****Prepared By:**

ADM - Product Regulatory Affairs

**Revision Date:**

07-Oct-2020

**Revision Number:**

2

**Reason for revision:**

Periodic review.

**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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