



## Citric Acid Anhydrous Elemental Impurities Statement

As part of our continued effort to provide customers with assurance of compliance to USP-NF monograph specifications, we have tested representative samples of ADM Citric Acid Anhydrous for the Elemental Impurities listed in USP <232>, following AOAC 2013.06 methodology. Results are presented in the table below, including elements that may be present in our product and the average concentration observed. None of the listed elemental impurities are intentionally added during the production of Citric Acid Anhydrous. ADM will conduct testing on a periodic basis in support of compliance with USP <232> and ICH Q3D.

Elemental Impurity	Sym	Class	Likely to be Present			Permitted Inhalation Concentrations USP <232> Table 3*	Expected Concentration /Units (or Range)*	Limit Of Detection
Arsenic (inorganic)	As	1	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unknown <input type="checkbox"/>	0.2 µg/g	3.5 µg/kg	2 µg/kg
Cadmium	Cd	1	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.2 µg/g	ND	2 µg/kg
Mercury (inorganic)	Hg	1	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.1 µg/g	ND	2 µg/kg
Lead	Pb	1	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.5 µg/g	ND	2 µg/kg
Cobalt	Co	2A	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.3 µg/g	ND	2 µg/kg
Nickel	Ni	2A	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unknown <input type="checkbox"/>	0.5 µg/g	15 µg/kg	12 µg/kg
Vanadium	V	2A	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.1 µg/g	ND	2 µg/kg
Silver	Ag	2B	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.7 µg/g	ND	2 µg/kg
Gold	Au	2B	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.1 µg/g	ND	2 µg/kg
Iridium	Ir	2B	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.1 µg/g	ND	2 µg/kg
Osmium	Os	2B	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.1 µg/g	ND	2 µg/kg
Palladium	Pd	2B	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.1 µg/g	ND	2 µg/kg
Platinum	Pt	2B	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.1 µg/g	ND	2 µg/kg
Rhodium	Rh	2B	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.1 µg/g	ND	2 µg/kg
Ruthenium	Ru	2B	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.1 µg/g	ND	2 µg/kg
Selenium	Se	2B	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	13 µg/g	ND	60 µg/kg
Thallium	Tl	2B	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	0.8 µg/g	ND	2 µg/kg
Barium	Ba	3	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unknown <input type="checkbox"/>	30 µg/g	1000 µg/kg	3 µg/kg
Chromium	Cr	3	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unknown <input type="checkbox"/>	0.3 µg/g	20 µg/kg	6 µg/kg
Copper	Cu	3	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unknown <input type="checkbox"/>	3.0 µg/g	15 µg/kg	6 µg/kg
Lithium	Li	3	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	2.5 µg/g	ND	60 µg/kg
Molybdenum	Mo	3	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	1.0 µg/g	ND	2 µg/kg
Antimony	Sb	3	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	2.0 µg/g	ND	2 µg/kg
Tin	Sn	3	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>	6.0 µg/g	ND	2 µg/kg

\*Please note that the Permitted Inhalation concentrations are given in parts per million (µg/g) values and the known/expected concentrations are given in parts per billion (µg/kg) values. Table 3 in USP 41 lists the permitted concentrations in oral, parenteral and inhalation applications. The lowest permitted concentration given in USP <232> Table 3 is in the Inhalation category.



## Letter of Guarantee – Carbohydrate Solutions

ADM hereby warrants and guarantees that all of the following products sold to you have been approved by the U.S. Food and Drug Administration for their use in foods or are Generally Recognized as Safe (GRAS), or exempt from the provisions of the 1958 Additives Amendment to the Food, Drug and Cosmetic Act, and are allowed for sale in Canada.

### Food and Industrial Grade Products

Acidulants-Citric Acid, Potassium and Sodium Citrate	Maltodextrin-Dry and Agglomerated and Tapioca
Alcohol-Beverage and Food	Monk Fruit
Allulose <sup>§</sup>	Rice Syrups
Corn Starch-Food, Industrial and Moulding	Stevia
Corn Syrup-Liquid and Solids	Sucralose
Crystalline Dextrose-Dry and Agglomerated	Sucrose*-Dry, Liquid and Invert
Erythritol	Sweetener Blends
Fructose-Crystalline and Liquid	Tapioca Starch-Modified and Native
High Fructose Corn Syrups	Tapioca Syrups

Some products available in GM and Non GM varieties. Contact [SweetenerInsideSales@adm.com](mailto:SweetenerInsideSales@adm.com)

\*Sourced from sugarcane and sugar beets

<sup>§</sup>Allulose is not approved for sale in Canada

We further guarantee that none of the foregoing products comprising any shipment or other delivery now in transit or hereafter made to you as is, as of the date of such shipment or delivery, has been adulterated or misbranded within the meaning of the Federal Foods, Drug and Cosmetic Act or any practically similar state or municipal law, or is an article which may not, under Section 404 or 505 of said Act, be introduced into Interstate Commerce. All of the foregoing is a continuing guarantee, subject to revocation upon written notice.

For further inquiries, please do not hesitate to contact us.

ADM Quality Center of Excellence



## Country of Origin Statement

The products listed below are manufactured within the boundaries of the United States of America, and are never outside its boundaries prior to shipment. The corn used as the raw material was sourced in the U.S.A.

### Food and Industrial Grade Products

Acidulants-Citric Acid, Potassium and Sodium Citrate	Crystalline Dextrose-Dry and Agglomerated (Clintose®)*
Alcohol-Beverage, Fuel and Industrial	Fructose-Crystalline and Liquid (CornSweet®)*
Corn Starch-Food, Industrial and Moulding	High Fructose Corn Syrups (CornSweet®)*
Corn Syrup-Liquid and Solids	Maltodextrin-Dry and Agglomerated (Clintose®)
Corn Sweetener Blends	

*\*Some Non-GM varieties excluded*

### Feed Grade Products

CitriStim®	Distiller's Dried Grains with Solubles
Corn Germ Meal	Golden Gluten™
Corn Gluten Feed	Golden Synergy™
Corn Gluten Meal	Liquid Gold™
Distiller's Corn Oil	Modified Wet Distiller's Grains

For further inquiries, please do not hesitate to contact us.

ADM Quality Center of Excellence



## FDA REGISTRATION CONFIRMATION ADM SOUTHPORT NC

ADM does not provide the registration numbers issued to ADM facilities registered under the FDA Food Safety Modernization Act and FDA Bioterrorism Act due to security concerns and the advice issued by the U.S. Food and Drug Administration (FDA). This information has been declared as beyond the reach of the Freedom of Information Act (5 U.S.C. 522) and Section 415(a)(5) of the FD&C Act prohibits FDA from publicly disclosing certain registration-related information, including the registration number.

The following screen shot from the FDA's Food Facility Registration Module (FFRM) is provided to you in a redacted state to ensure that sensitive information is not disclosed. This is the actual screen from the FFRM and is presented to you as additional confirmation of the registration of this specific facility.

Date 12/17/2022 12:58:45	Created by [REDACTED]
Created Date 2003-10-20 14:35:24.0	Registration Renewed Date 2022-11-15
Registration Expiration Date 2024-12-31	
Last Updated 2022-12-17	
Registration Status VALID	
Registration Status Reason Biennial Registration Renewal - 2022	

Is this facility engaged in the manufacturing/processing, packing, or holding of food for human or animal consumption in the United States?

☒ Yes ☐ No

### Section 1: Type of Registration

Facility Location : Domestic Registration

UPDATE OF REGISTRATION INFORMATION: Registration Number: [REDACTED] [Modify Pin](#)

Are you the new owner of a previously registered facility?

☐ Yes ☒ No

Previous Owner's Title:  
Previous Owner's Name :  
Previous Owner's Registration Number :

### Section 2: Facility Name/Address Information

[Edit](#)

Facility Name ADM Southport	Telephone Number [REDACTED]
Facility Name Suffix Company	
Facility Street Address, Line 1 1730 E Moore St	
Facility Street Address, Line 2	
City Southport	

For further inquiries, please do not hesitate to contact us. ADM Quality Center of Excellence



## National Bioengineered Food Disclosure Standard: Acidulant Products

On December 21, 2018, the Agricultural Marketing Service, USDA released the final rule establishing the new mandatory National Bioengineered Food Disclosure Standard (NBFDS). The NBFDS requires food manufacturers, importers, and other entities that label foods for retail sale to disclose information about bioengineered (BE) food and BE food ingredients. This rule is intended to provide a mandatory uniform national standard for disclosure of information to consumers about the BE status of foods. This rule is effective from February 19, 2019 and has an implementation date of January 1, 2020. The mandatory compliance date for BE labeling is January 1, 2022.

ADM *Acidulant* products (*Citric acid, Sodium Citrate, and Potassium Citrate*) may be derived from bioengineered crops. These highly refined *Acidulant* products, produced at ADM Southport, NC, have been purified through multi-step process that will remove protein and DNA, and other impurities. Testing for the presence of recombinant DNA using PCR analysis on ADM *Acidulant* products has repeatedly shown non-detectable limits (0.01% limit of detection) for the CaMV 35s promoter and NOS terminators.

ADM has conducted the validation of the corn processing system, by testing incoming seeds and the finished product going through the documented refining process.

As expected, the PCR results were positive for seed while the refined finished product, *Acidulant* products tested all negative. Based on ADM's interpretation of the USDA AMS NBFDS, the validation testing data, historical testing data as well as our knowledge and experience with the process, ADM Acidulants, including Citric acid (and Citrosol), Sodium Citrate, and Potassium Citrate will not require disclosure under the National Bioengineered Disclosure Standard.

For further inquiries, please do not hesitate to contact us.

ADM Quality Center of Excellence



## Natural Statement – Acidulant Products

There is no formal definition issued by FDA for the term "natural" except as it is defined for "natural flavors" under 21 CFR 101.22 and FDA does not restrict the use of the term "natural" solely to flavorings. At this time, the FDA considers ingredients to be natural on a "case by case" basis, which takes into account the ingredient source and the processing to derive the product. Using this information, we can state that citric acid and its salts are produced by fermentation of carbohydrates from corn and/or molasses using a Non-GM microbe. The final product is produced by purification from this source.

ADM does not express an opinion whether their inclusion in your finished product qualifies your product as "natural" under U.S. FDA policy or that of any other federal or state regulatory agency. Ultimate labeling of the finished product and specific claims should be discussed with your legal counsel.



## Raw Materials Statement: ADM Citric Products

ADM citric acid products are produced by the fermentation of carbohydrates from corn and/or molasses using a non-BE microorganism. Citric acid is manufactured in a closed, dedicated system. Sodium and potassium citrate are campaigned on the same manufacturing line utilizing a hot water cleaning procedure with verification testing between campaigns. The manufacturing processes for the citrate salt products are also carried out in a closed system.

For further inquiries, please do not hesitate to contact us.

ADM Quality Center of Excellence



## **Ingredient Statement: Citric Acid Anhydrous**

Citric Acid Anhydrous is Generally Recognized As Safe (GRAS) as a food additive (21 CFR 184.1033). The ingredient listing is as follows: "Citric Acid".

The composition of Citric Acid Anhydrous is 100 percent Citric Acid.

For further inquiries, please do not hesitate to contact us.

ADM Quality Center of Excellence





## Archer Daniels Midland Company Carbohydrate Solutions

ADM Technical Services | 4666 Faries Parkway, Decatur IL 62526  
P: 800.238.9026 | F: 217.451.2153 | CPTechService@adm.com

### Genetically Modified Organisms (GMO) Statement

Archer Daniels Midland Company (ADM) contracts to procure its raw material corn from only European Union (EU) approved varieties. Due to our large scale of operations, non-GM and GM corn cannot be segregated from one another. Consequently, ADM's products may or may not be produced from GM corn. The list of products can be seen at the end of this document.

Industry consensus is that GM DNA, or protein, in the raw material stream is denatured, degraded, or removed through refining by successive processing which includes physical separation, heating, purification, and filtration. As a result, GM DNA, or protein, cannot be detected in measurable amounts in highly refined products.

While GM DNA or protein is not expected, ADM does periodically test for its presence. Previous samples tested for GM DNA were reported non-detect down to 0.1% by a third party. Our experience of the manufacturing process and historic non-detectable test results by PCR (Polymerase Chain Reaction), we can ascertain that our products are PCR negative for quantifiable value of GM DNA.

#### Food and Industrial Grade Products

Acidulants-Citric Acid, Potassium and Sodium Citrate	Fructose-Crystalline and Liquid (CornSweet®)
Alcohol-Beverage, Fuel and Industrial Grade	High Fructose Corn Syrups (CornSweet®)
Allulose (JustSweet™)	Maltodextrin-Dry and Agglomerated (Clintose®)
Corn Syrup-Liquid and Solids	Sweetener Blends
Crystalline Dextrose-Dry and Agglomerated (Clintose®)	

Date Approved  
2019-02-08

Version  
4.0

Document #  
CBU.TS.MISC.025

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**Archer Daniels Midland Company  
Corn Business Unit**

ADM Technical Services | 4666 Faries Parkway, Decatur IL 62526  
P: 800.238.9026 | F: 217.451.7574 | CPTechService@adm.com

## **ADM Citric Products and Parabens, Sulfates, Phthalates, dyes, (iso) Paraffin, Mineral oil, and Petrolatum Statement**

ADM Citric products (including Citric Acid, Potassium Citrate, and Sodium Citrate) are produced following U.S. FDA Good Manufacturing Practices Guidelines (21 CFR 117).

Parabens, sulfates, phthalates, dyes, (iso) paraffin, mineral oil, and petrolatum have not been added to ADM's Citric products nor have they been introduced in the packaging. Please be advised that compendia monographs allow for 150 ppm sulfate to be present in our Citric Products.

If you have any questions, please do not hesitate to contact us.

ADM Technical Services

**Disclaimer:**

The information contained herein is correct as of the date of this document to the best of our knowledge. Any recommendations or suggestions are made without guarantee or representation as to results and are subject to change without notice. We suggest you evaluate any recommendations and suggestions independently. WE DISCLAIM ANY AND ALL WARRANTIES, WHETHER EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIM THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. Our responsibility for claims arising from any claim for breach of warranty, negligence, or otherwise shall not include consequential, special, or incidental damages, and is limited to the purchase price of material purchased from us. None of the statements made here shall be construed as a grant, either express or implied, of any license under any patent held by Archer Daniels Midland Company ingredients.

**January 22, 2016**



# ARCHER DANIELS MIDLAND COMPANY

ARCHER DANIELS MIDLAND COMPANY  
4666 FARIES PARKWAY  
DECATUR IL 62526-0000

9535789 20200825020420  
IXCOR93: A335094 789020420

## CERTIFICATE OF ANALYSIS

CITRIC ACID USP ANHYDROUS FINE GRANULAR

(ADM PRODUCT CODE 020420)

THIS CERTIFICATE OF ANALYSIS IS VALID ONLY FOR THE SHIPMENT AS DESCRIBED IN THE SHIPMENT INFORMATION SHOWN BELOW.

SHIP TO: 000789 ADM SPECIALTY INGREDIENTS DIVISIO  
CITRIC ACID  
SOUTHPORT NC

### SHIPMENT INFORMATION:

CONTAINER/LOT #: S001023 LOAD/MFG DATE: 01-02-2020 ADM ORDER #:  
LOT CODE: S001023-200102- SHIP DATE: --  
CONTAINER CODE: 0H 50# BAG BEST BY DATE: 01-01-2023 WEIGHT/QUANTITY: 1

### PRODUCT ANALYSIS:

TEST	RESULT	UNIT	LIMIT	REFERENCES
IDENTIFICATION	PASSES TEST		(X) PASSES TEST	USP/FCC
ASSAY	100.00	%	(-) 99.5 - 100.5%	USP/FCC
WATER	0.04	%	(-) < 0.5%	USP
RESIDUE ON IGNITION	< 0.05%		(X) < 0.05%	USP/FCC
READILY CARBONIZABLE SUBSTANCES	PASSES TEST		(-) PASSES TEST	USP/FCC
LIMIT OF OXALIC ACID	< 0.036%		(X) < 0.036%	USP
HEAVY METALS	< 5MG/KG		(X) < 5MG/KG	USP/FCC
LEAD	< 0.5MG/KG		(X) < 0.5MG/KG	FCC
SULFATE	PASSES TEST		(X) < 0.015%	USP
ON USS 30 MESH	0.1	%	(-) < 3%	ADM
MESH, % THROUGH #100	0.7	%	(-) < 5%	ADM
CLARITY OF SOLUTION	PASSES TEST		(-) PASSES TEST	USP
COLOR OF SOLUTION	PASSES TEST		(-) PASSES TEST	USP
OXALATE	CONFORMS		(X) CONFORMS	FCC
TESTING FREQUENCY: (-) PER LOT; (X) WEEKLY				

### PRODUCT GUARANTEES:

USP-NF/FCC (EXCIPIENT/FOOD USE ONLY)

\*

THIS PRODUCT COMPLIES WITH PH EUR, BP, USP, FCC, JP, E330 & FAO/WHO FOOD ADDITIVE SPECIFICATIONS. IT OCCURS AS COLORLESS TRANSLUCENT CRYSTALS OR AS A WHITE, GRANULAR TO FINE CRYSTALLINE POWDER. IT IS ESSENTIALLY ODORLESS AND HAS A STRONG ACID TASTE.

\*

PRODUCT IS MANUFACTURED AT ADM SOUTHPORT, NC

CERTIFIED BY: SARA HATCH, SOUTHPORT QA MANAGER  
RUN DATE: 08/25/2020 RUN TIME: 11:58:08

FORM COA001 (01/2020)

# Certificate of Approval

This is to certify that the Food Safety Management System of:

## Archer-Daniels-Midland Company

3615 Fairies Parkway, Decatur, IL, 62526, United States

has been assessed by LRQA and determined to comply with the requirements of:

### Food Safety System Certification 22000, FSSC 22000

Certification scheme for food safety management systems consisting of the following elements:

ISO22000:2018, ISO/TS 22002-1:2009 and additional FSSC22000 requirements (version 5.1)

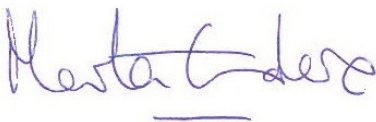
Food Chain (Sub) Category: CIV, K

Approval number(s): FSSC 22000 – 00042057

COID: USA-1-2080-217294

#### The scope of this approval is applicable to:

Blending and packaging of soluble dietary fiber, sorbitol adjuncts, propylene glycol, glycerine and sweetener in drums and totes to be used as ingredients or raw materials for the food industry.



**Marta Escudero**

Regional Director, United Kingdom and Americas (UKAM)

Issued by: LRQA Limited



The authenticity can be verified in the FSSC22000 database of Certified Organizations available on [www.fssc22000.com](http://www.fssc22000.com).

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Issued by: LRQA Limited, 1 Trinity Park, Bickenhill Lane, Birmingham B37 7ES, United Kingdom