



Material Safety Data Sheet

NFPA	WHMIS	Personal Protective Equipment	Transport Symbol

Preparation Date 02-Mar-2009

Revision Date 02-Mar-2009

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium Citrate Dihydrate

Product Code: 042410, 042420, 042440

Synonyms:

Trisodium 2-hydroxypropane-1,2,3, tricarboxylate dihydrate. CAS 6132-04-3.

Use of the Substance / Preparation:

Food additive.

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

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance Colorless to White

Physical State Powder / Crystalline
Granules

Odor Odorless

Potential Health Effects

Principle Routes of Exposure

Eye contact, Skin contact, Inhalation, Ingestion.

Acute Effects

Eyes

May cause slight irritation

Skin

May cause slight skin irritation

Inhalation

May cause irritation of respiratory tract

Ingestion

May be harmful if swallowed.

Chronic Effects

Repeated contact may cause allergic reactions in very susceptible persons

Main Symptoms

Repeated or prolonged exposure may cause irritation of eyes and skin. Shortness of breath.

Aggravated Medical Conditions

No information available.

Potential Environmental Effects

See Section 12 for additional ecological information.

Toxicological information

See Section 11 for additional toxicological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family

Esters

FormulaNa₃C₆H₅O₇ @ 2H₂O**Non-hazardous Components**

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Citrate, sodium, dihydrate	6132-04-3	100	-

4. FIRST AID MEASURES

Eye Contact	Rinse thoroughly with plenty of water, also under the eyelids
Skin Contact	Wash off with warm water and soap.
Inhalation	Move to fresh air
Ingestion	Clean mouth with water and afterwards drink plenty of water
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties	Fine dust dispersed in air may ignite.
Suitable Extinguishing Media	Water. Carbon dioxide (CO ₂). Foam. Dry powder. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	No information available.
Hazardous Combustion Products	Carbon monoxide (CO), Carbon dioxide (CO ₂).
Explosion Data	
Sensitivity to mechanical impact	No information available.
Sensitivity to static discharge	No information available.
Specific Hazards Arising from the Chemical	Combustible material.

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 Containment	Keep in suitable, closed containers for disposal.
Methods for Clean-up	Shovel or sweep up. Avoid dust formation. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling	Ensure adequate ventilation. Avoid dust formation in confined areas. Fine dust dispersed in air may ignite.
Storage	Keep in a dry, cool and well-ventilated place.

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.

Engineering Measures	Ensure adequate ventilation, especially in confined areas
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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	Colorless to White	Physical State	Powder / Crystalline Granules
Odor	Odorless	Odor Threshold	No information available
Flash Point	Not applicable	Autoignition Temperature	No information available
Boiling point	Not applicable	Melting/Freezing Point	Decomposes before melting
Flammability Limits in Air	No information available	Explosion Limits	No information available
pH	approx. 8.0	Vapor Pressure	No information available
Solubility	Insoluble, Alcohol.	Water Solubility	(approx. 42%)
Specific Gravity	No information available	Evaporation Rate	No information available
Vapor Density	No information available		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Heat, flames and sparks
Incompatible Materials	No information available.
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 No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental properties.

Chemical Name	Acute Fish Toxicity	Daphnia (Water flea)	Fresh Water Algae
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Citrate, sodium, dihydrate	96 Hr LC50 <i>Poecilia reticulata</i> : 18000-32000 mg/L		
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Persistence/Degradability No information available.
Bioaccumulation/ Accumulation No information available.
Mobility No information available

13. DISPOSAL CONSIDERATIONS

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

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
Citrate, sodium, dihydrate	Yes 68-04-2	Yes 68-04-2	No	Yes 200-675-3	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

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**

This product is not known to contain chemicals listed under Proposition 65.

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
Citrate, sodium, dihydrate	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.

16. OTHER INFORMATION

Prepared By Specialty Food Ingredients
Preparation Date 02-Mar-2009
Revision Date 02-Mar-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