



# Safety Data Sheet

Original Preparation Date: 22-Jan-2010

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Revision Number: 1

## 1. Identification

**Product Name:**

CardioAid®-S Plant Sterol Esters

**Product Code:**

040087

**Use of the Substance / Preparation:**

Nutrient

**Contact Manufacturer:**

Archer Daniels Midland Company

4666 Faries Parkway

Decatur, IL 62526, USA

Telephone Number: (+1) 217-424-5200

**Emergency response telephone number:**

Chemtrec 1-800-424-9300 (CCN 1635)

## 2. Hazard(s) identification

### Emergency Overview

Spontaneous combustion (fire) may result from oil soaked materials such as rags, steel wool, paper, and clothing. Place soaked materials in a sealed, metal container to prevent this. The product contains no substances which at their given concentration, are considered to be hazardous to health.

**Appearance**

Light yellow Opaque

**Physical State**

Wax-like Paste

**Odor**

Slight

**This product is NOT classified as hazardous according to the criteria contained in the Hazard Communication Standard 29 CFR 1910.1200 (known as HCS 2012) or the Hazardous Products Regulations SOR/2015-17 (known as WHMIS 2015). However, vegetable oil (in mist form) is known to be listed as an OSHA 29 CFR 1910.1000 Air Contaminant. Occupational exposure limits are subsequently provided in section 8 of this SDS.**

## 3. Composition/information on ingredients

**Common Name**

Pure Plant Sterols

**Non-hazardous Components**

Chemical Name	CAS-No	Weight %	North American Substance Hazard Class
Plant sterol esters	68990-51-2	99-100	None known
Mixed Tocopherols	1406-66-2	< 0.1	None known
ascorbic acid L 6-hexadecanoate	137-66-6	< 0.1	None known

**Additives / Other Ingredients:**

Also contains: one or more antioxidants.

## 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.

**Inhalation** Move to fresh air.

**Ingestion** No special measures required. Health injuries are not known or expected under normal use.

**General Advice** No hazards which require special first aid measures. When symptoms persist or in all cases of doubt seek medical advice.

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

**Eyes** Not expected to pose health issues for the eye.

**Skin** Health injuries are not known or expected under normal use.

**Inhalation** Health injuries are not known or expected under normal use. When in the form of an airborne mist, refer to section 8 of this sheet for exposure limits pertaining to "vegetable oil mist". Excessive inhalation of mist may result in respiratory irritation.

**Ingestion** Health injuries are not known or expected under normal use. Over exposure may cause: Gastrointestinal disturbance.

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

**Notes to Physician** Treat symptomatically.

## 5. Fire-fighting measures

### Flammable Properties

Material may pose fire hazard because it is dispersed (or spread) by water.

### Extinguishing media

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

**Unsuitable Extinguishing Media** Do not use a solid water stream as it may scatter and spread fire.

### Special hazards arising from the substance or mixture

**Hazardous Combustion Products** Thermal decomposition can lead to release of irritating gases and vapors, Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

**Specific Hazards Arising from the Chemical** Risk of ignition. Rags and other materials containing this product may heat and spontaneously ignite, if exposed to air. Store wiping rags and similar materials in metal cans with tightly fitting lids. Cool closed containers exposed to fire with water spray.

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

**Sensitivity to static discharge** No.

### 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.

### 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 high pressure washing or generation of aerosols. Material can create slippery conditions.

### Environmental Precautions

Prevent further leakage or spillage if safe to do so.

### Methods and Materials for Containment and Cleaning Up

Use dry spill kit material or sand, collect in appropriate containers. For disposal information see section 13. Clean contaminated surface thoroughly.

### Other Information

Oil soaked materials may spontaneously combust.

## 7. Handling and storage

### Handling

Handle in accordance with good industrial hygiene and safety practice. Keep away from open flames, hot surfaces and sources of ignition. Do not use pressure to empty drums. Ensure adequate ventilation.

### Storage

Store in a cold place at temperatures at or below 8°C (46°F) or in a freezer at temperatures at or below -10°C (14°F). To maintain product quality, do not store in heat or direct sunlight. Keep containers dry and tightly closed to avoid moisture absorption and contamination.

## 8. Exposure controls/Personal protection

### Exposure Limits

When in the form of an airborne mist containing vegetable oil, observe the OSHA and ACGIH established limits for "vegetable oil mist". OSHA PEL: [15 mg/m<sup>3</sup> (mist) 8-hr TWA], [5 mg/m<sup>3</sup> mist (respirable) 8-hr TWA]. ACGIH TLV: [10 mg/m<sup>3</sup> (mist) 8-hr TWA].

### 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.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

### Personal Protective Equipment

#### Eye/face Protection.

If exposed to airborne mist, or if splashing is possible, appropriate safety glasses with side-shields or safety goggles are recommended.

#### Skin and Body Protection

Oil resistant gloves are recommended. Appropriate body protection should be selected based on activity and possible exposure. Contact with product at elevated temperatures can result in thermal burns. Also take into consideration the specific local conditions under which the product is used.

#### Respiratory Protection

In case of mist, spray or aerosol exposure wear suitable personal respiratory protection.



## 9. Physical and chemical properties

<b>Appearance</b>	Light yellow Opaque
<b>Physical State</b>	Wax-like Paste
<b>Odor</b>	Slight
<b>Odor Threshold</b>	Not applicable
<b>pH</b>	No information available
<b>Flash Point</b>	Not applicable
<b>Autoignition Temperature</b>	Not auto-flammable
<b>Boiling point</b>	> 260 °C / 500 °F
<b>Melting/Freezing Point</b>	25-30 °C / 77-86 °F
<b>Decomposition temperature</b>	No information available
<b>Oxidizing Properties</b>	Not expected to be oxidising
<b>Flammability Limits in Air</b>	No information available
<b>Explosion Limits</b>	No information available
<b>Molecular Weight</b>	No data available
<b>Water Solubility</b>	Insoluble
<b>Solubility(ies)</b>	Soluble in many organic solvents
<b>Surface Tension</b>	Not applicable.
<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>Relative Density</b>	No information available
<b>Partition Coefficient (n-octanol/water)</b>	No information available

## 10. Stability and reactivity

**Stability** Stable under normal conditions.

**Possibility of Hazardous Reactions** None under normal processing.

**Conditions to Avoid** Keep away from open flames, hot surfaces and sources of ignition.

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

**Hazardous Decomposition Products** Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

## 11. Toxicological information

### Information on toxicological effects

<b>Acute toxicity</b>	Based on available data, the classification criteria are not met.
<b>Skin corrosion/irritation</b>	Based on available data, not, or only slightly irritating.
<b>Serious eye damage/eye irritation</b>	Based on available data, no evidence of serious eye damage / irritation.
<b>Respiratory or skin sensitisation</b>	Based on available data, not expected to be a skin or respiratory sensitiser.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, no evidence of carcinogenicity.
<b>Reproductive toxicity</b>	Based on available data, no evidence of reproductive toxicity
<b>STOT - single exposure</b>	Based on available data, the classification criteria are not met.
<b>STOT - repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Based on available data, no known aspiration hazard.

### Potential health effects

<b>Eyes</b>	Not expected to pose health issues for the eye.
<b>Skin</b>	Health injuries are not known or expected under normal use.
<b>Inhalation</b>	Health injuries are not known or expected under normal use. When in the form of an airborne mist, refer to section 8 of this sheet for exposure limits pertaining to "vegetable oil mist". Excessive inhalation of mist may result in respiratory irritation.
<b>Ingestion</b>	Health injuries are not known or expected under normal use. Over exposure may cause: Gastrointestinal disturbance.

## 12. Ecological information

### Ecotoxicity

Not classified for aquatic toxicity.

<b>Persistence/Degradability</b>	Biodegradable.
<b>Mobility</b>	The product is insoluble and floats on 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. Oil soaked materials may spontaneously combust and should be properly managed to avoid ignition and heat sources or oxygen rich environments. Collect and store soaked materials in closed, metal containers to help prevent combustion.
<b>Contaminated Packaging</b>	Empty containers should be decontaminated and 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	ICL	EINECS	ELINCS	AICS
Plant sterol esters	Yes	No	Yes	No	Yes 273-605-2	No	No
Mixed Tocopherols	Yes 119-13-1 54-28-4 59-02-9 148-03-8	Yes 119-13-1 54-28-4 59-02-9 148-03-8	No	Yes	Yes 204-299-01 200-201-5 200-412-2 205-708-5	No	No
ascorbic acid L 6-hexadecanoate	Yes	Yes	No	No	Yes 205-305-4	No	Yes

Chemical Name	ENCS ISHL	CHINA	PICCS	KECL	Taiwan	Turkey	NZIoC
Plant sterol esters	No	Yes	No	Yes KE-16844	Yes	No	Yes
Mixed Tocopherols	Yes (9)-864	Yes	Yes	Yes KE-10632 KE-10771 KE-10750 KE-10768	Yes	No	Yes
ascorbic acid L 6-hexadecanoate	Yes (5)-63	Yes	Yes	Yes Annex 1 (KE-01949)	Yes	Yes 205-305-4	Yes

**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.

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 63)**

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.

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

No known component is listed on NPRI.

**Mexico**

Mexico - Grade

Slight risk, Grade 1

**16. Other information**

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<b>Revision Number:</b>	1
<b>Reason for revision:</b>	New SDS format. This version replaces all previous versions.

**Abbreviations and acronyms**

A1 - Known Human Carcinogen  
A2 - Suspected Human Carcinogen  
A3 - Animal Carcinogen  
A4 - Not classifiable as a human carcinogen  
ACGIH TLV - American Conference of Governmental Industrial Hygienists Threshold Limit Values  
CAS - Chemical Abstract Service  
Ceiling - Ceiling Limit Value: Concentrations that should never be exceeded at any given time (instantaneous)  
CHINA - Chinese Inventory of Existing Chemical Substances (China)  
CLP - Classification, Labelling and Packaging, Regulation (EC)1272/2008  
CSA - Chemical Safety Assessment  
CSR - Chemical Safety Report  
Delisted - Substances Delisted from Report on Carcinogens  
DNEL - Derived No Effect Level  
DOT - U.S. Department of Transportation  
DSL - Domestic Substance List (Canada)  
EC - European Commission  
EC No. - European Community number  
EC50 - Half maximal effective concentration  
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)  
EPCRA - Emergency Planning and Community Right-to-Know Act of 1986 (USA)  
FOSFA - The Federation of Oils, Seeds and Fats Associations  
GHS - Globally Harmonized System of Classification and Labelling of Chemicals  
Group 1 - Carcinogenic to Humans  
Group 2A - Probably Carcinogenic to Humans  
Group 2B - Possibly Carcinogenic to Humans  
Group 3 - Not Classifiable  
IARC - International Agency for Research on Cancer  
IATA - International Air Transport Association Dangerous Goods Regulations  
IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
ICAO - International Civil Aviation Organisation  
ICL - In Commerce List (Canada)  
IDLH - Immediately Dangerous to Life or Health  
IMDG - International Maritime Dangerous Goods Code

IMO - International Maritime Organization  
IUB - International Union of Biochemistry and Molecular Biology  
KECL - Korean Existing and Evaluated Chemical Substances (Korea)  
Known - Known Carcinogen  
LC50 - Lethal concentration that produces fatalities in 50% of a given test population  
LD50 - Median lethal dose of a given test population  
Marpol - International Convention for the Prevention of Pollution From Ships  
MEPC - Marine Environment Protection Committee  
MEX - NOM-002-SCT/2003 List of Hazardous Substances and Materials Most Commonly Transported  
MEXICO - Mexico Occupational Exposure Limits  
NDSL - Non Domestic Substances List (Canada)  
NFPA - National Fire Protection Association  
NIOSH - National Institute of Occupational Safety and Health  
NOAEL - No Observed Adverse Effect Level  
NTP - National Toxicology Program  
NZIoC - New Zealand Inventory of Chemicals (New Zealand)  
OECD - Organisation for Economic Co-operation and Development  
OSHA - Occupational Safety & Health Administration  
OSHA PEL - Occupational Safety and Health Administration Permissible Exposure Limits  
PICCS - Inventory of Chemicals and Chemical Substances (Philippines)  
PNEC - Predicted No-Effect Concentration  
Present - Carcinogen or potential carcinogen to be identified under OSHA's Hazard Communication Standard  
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen  
SEN - Sensitizer notation. May reflect risk of dermal and/or inhalation sensitization (consult ACGIH documentation).  
Skin notation - Potential for cutaneous absorption  
STEL - Short Term Exposure Limit: Concentrations that should not be exceeded except for short periods of time ( usually 15-minutes)  
STOT - Specific Target Organ Toxicity  
STV - Short Term Value (same as STEL)  
TDG - Transportation of Dangerous Goods (Transport Canada)  
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)  
Under Consideration - Under Consideration by the National Toxicology Program  
vPvB - Very Persistent and Very Bioaccumulative  
WHMIS - Workplace Hazardous Materials Information System

**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.**

End of sheet