



Safety Data Sheet

Revision Date: 02-Apr-2019

Revision Number: 1

1. Identification

Product Name:

(1219) DaaForce® 100

Product Code:

910702AG

Use of the Substance / Preparation:

Animal feed ingredient

Supplier / Distributor:

ADM Animal Nutrition™

1000 North 30th St.

Quincy, IL 62301

United States

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

Emergency response telephone number:

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

2. Hazard(s) identification

Emergency Overview

May form combustible dust concentrations in air (during processing and handling).

Appearance

No information available

Physical State

Powder

Odor

No information available

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

GHS Hazard Pictogram(s): Note: The combustible dust hazard class does not have an assigned pictogram.

Hazard Statement(s): May form combustible dust concentrations in air.

3. Composition/information on ingredients

The following component(s) in this product are considered hazardous under applicable OSHA (USA), WHMIS (Canada), and/or NOM-002-SCT-2003 (Mexico) regulations (or require disclosure as an air contaminant)

Chemical Name	CAS-No	Weight %	North American Substance Hazard Class
Silica, amorphous	7631-86-9	25 <=x %< 50	29 CFR 1910.1000 Air Contaminant. See section 8 for OELs.
Magnesium oxide	1309-48-4	0<=x %< 2.5	29 CFR 1910.1000 Air Contaminant. See section 8 for OELs.

Components which are not considered to be health hazards under paragraph (d) of 29 CFR §1910.1200 (HCS 2012) or SOR/2015-17 (WHMIS 2015) are not required to be disclosed. 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. Where a single SDS is used for similar mixtures or in cases of a batch-to-batch variability, OSHA guidance allows for the use of concentration ranges. [Directive: CPL 02-02-079]

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 Clean mouth with water and afterwards drink plenty of water.

General Advice When symptoms persist or in all cases of doubt seek medical advice.

Most important symptoms and affects, both acute and delayed

Eyes Health injuries are not known or expected under normal use.

Skin Product dust may cause mild, mechanical irritation.

Inhalation Dust may cause irritation of respiratory tract.

Ingestion Health injuries are not known or expected under normal use. The product is not expected to produce ill effects when blended into animal feed in the recommended quantities.

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

As with most organic solids, combustion is possible at elevated temperatures or by contact with an ignition source. 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 Water. Foam. Carbon dioxide (CO₂) Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None known.

Special hazards arising from the substance or mixture

Hazardous Combustion Products Thermal decomposition can lead to release of irritating gases and vapors, Acrolein, Carbon oxides.

Specific Hazards Arising from the Chemical None known.

Sensitivity to mechanical impact No information available.

Sensitivity to static discharge Yes. (as dust).

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

Use appropriate personal protective equipment. Avoid dust formation and accumulation. Avoid contact with the skin and the eyes.

Environmental Precautions

Prevent further leakage or spillage if safe to do so.

Methods and Materials for Containment and Cleaning Up

Sweep up or vacuum up using spark-free earthed vacuum cleaner.

7. Handling and storage

Handling

Avoid contact with skin and eyes. Ensure adequate ventilation. Avoid dust formation in confined areas. Fine dust dispersed in air may ignite. Keep away from open flames, hot surfaces and sources of ignition. Refer to NFPA 61, "Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities".

Storage

Store in a cool, dry, hygienic situation, whether in bulk silos, tote bags or sacks. Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store at temperatures between 50° F and 86° F.

8. Exposure controls/Personal protection

Exposure Limits

Where exposure limits have not been established for specific components of this material, please observe the OSHA and ACGIH established limits for particulates not otherwise classified (PNOC). OSHA PEL: [15 mg/m³ (total dust) 8-hr TWA], [5 mg/m³ (respirable) 8-hr TWA]. ACGIH TLV: [10 mg/m³ (inhalable) 8-hr TWA], [3 mg/m³ (respirable) 8-hr TWA].

Components with workplace control parameters.

Chemical Name	ACGIH TLV	OSHA PEL	Mexico	NIOSH
Silica, amorphous		20 mppcf TWA (80)/(% SiO ₂) mg/m ³ TWA		IDLH: 3000 mg/m ³ TWA: 6 mg/m ³
Magnesium oxide	TWA: 10 mg/m ³ inhalable fraction	TWA: 15 mg/m ³ fume, total particulate	TWA: 10 mg/m ³ (LMPE-PPT) Mg fume	IDLH: 750 mg/m ³

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. Ensure that eyewash stations and safety showers are close to the workstation location.

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

Personal Protective Equipment

Eye/face Protection.

If exposed to airborne dust, appropriate safety glasses with side-shields or safety goggles are recommended to reduce the potential of mechanical irritation.

Skin and Body Protection

Protective clothing and gloves may be worn to reduce the potential of mechanical irritation. Also take into consideration the specific local conditions under which the product is used.

Respiratory Protection

If exposed to airborne dust, use appropriate NIOSH approved (or equivalent) respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Appropriate respiratory protection should be selected by a qualified person and should be based upon a risk assessment of the work activities and exposure levels.



9. Physical and chemical properties

Appearance	No information available
Physical State	Powder
Odor	No information available
Odor Threshold	No information available
pH	No information available
Flash Point	No information available
Autoignition Temperature	No information available
Boiling point	No information available
Melting/Freezing Point	No information available

Decomposition temperature	No information available
Oxidizing Properties	No information available
Water Solubility	No information available
Evaporation Rate	No information available
Vapor Pressure	No information available
Vapor Density	No information available
Specific Gravity / Relative Density	No information available
Partition Coefficient (n-octanol/water)	No information available

10. Stability and reactivity

Reactivity Stable under recommended use and storage conditions.

Stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

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

Incompatible Materials No materials to be especially mentioned.

Hazardous Decomposition Products Carbon oxides. Acrolein.

11. Toxicological information

Information on toxicological effects

Acute toxicity	Based on available data, no evidence of acute toxicity. (Classification is based on available literature data for the significant mixture components). The product is not expected to produce ill effects when blended into animal feed in the recommended quantities.			
Chemical Name	Weight %	LD50 Oral	LD50 Dermal	LC50 Inhalation
Silica, amorphous	25 <=x %< 50	5000 mg/kg Rat	2000 mg/kg Rabbit	2.2 mg/L Rat 1 h
Skin corrosion/irritation	Based on available data, not, or only slightly irritating. (Classification is based on available literature data for the significant mixture components).			
Serious eye damage/eye irritation	Based on available data, no evidence of serious eye damage / irritation. (Classification is based on available literature data for the significant mixture components).			
Respiratory or skin sensitisation	Not expected to be a skin or respiratory sensitizer. (Classification is based on available literature data for the significant mixture components).			
Germ cell mutagenicity	Not classified. Not expected to be mutagenic. None of the significant input ingredients of this mixture have been identified as being mutagenic.			
Carcinogenicity	Based on available data, no evidence of carcinogenicity. No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen.			
Reproductive toxicity	Not classified. Not expected to be toxic to reproduction. None of the significant input ingredients of this mixture have been identified as being toxic to reproduction.			
STOT - single exposure	Not classified. No evidence of toxicity. None of the significant input ingredients of this mixture have been identified as a STOT SE hazard.			
STOT - repeated exposure	Not classified. No evidence of toxicity. None of the significant input ingredients of this mixture have been identified as a STOT RE hazard.			
Aspiration hazard	Based on available data, no known aspiration hazard. (Classification is based on available literature data for the significant mixture components).			

Potential health effects

Eyes

Health injuries are not known or expected under normal use.

Skin

Product dust may cause mild, mechanical irritation.

Inhalation

Dust may cause irritation of respiratory tract.

Ingestion

Health injuries are not known or expected under normal use. The product is not expected to produce ill effects when blended into animal feed in the recommended quantities.

12. Ecological information

Ecotoxicity

Not classified for aquatic toxicity. This product has not been evaluated for eco-toxicological effects. Component-level values are listed below.

Chemical Name	Fresh Water Algae	Acute Fish Toxicity	Daphnia (Water flea)	Effects on micro-organisms	Other
Silica, amorphous	EC50: 72h 440 mg/L (Pseudokirchneriella subcapitata)	LC50: 96h 5000mg/L (Brachydanio rerio) static	EC50: 48h 7600 mg/L (Ceriodaphnia dubia)		

Persistence/Degradability	No information available
Mobility	No information available
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.
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

As animal feed, this product is exempted from the following inventories: U.S.A. (TSCA). When used as "feed" defined in the Canadian Feeds Act 1995 and the Feeds Regulations (SOR/83-592), this product is exempted from the following inventory: 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**

This product may contain one or more ingredient(s) which are subject to state right to know laws. Please contact your sales or technical representative if composition details are needed.

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

No known component is listed on NPRI.

16. Other information

Initial Supplier(s)	Daavision Dutch Agricultural Additives P.O. Box 168 5340 AD Oss The Netherlands Telephone : +31 412 405 760. Fax : +31 412 405 769.
Prepared By:	ADM - Product Regulatory Affairs
Revision Date:	02-Apr-2019
Revision Number:	1
Reason for revision:	Initial SDS.

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