SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name:
AG PRO TIAMULIN 10G

Product Code:
G668601N

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)

Emergency response telephone number:
Chemtrec 1-800-424-9300 (CCN 1635)

2. HAZARDS IDENTIFICATION

Emergency Overview

May form combustible dust concentrations in air (during processing and handling). Product dust may cause mild, mechanical irritation.

Appearance	Physical State	Odor
Tan	Solid	No information available

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

OSHA / GHS Label Elements

GHS Hazard Pictogram(s):	Note: The combustible dust hazard class does not have an assigned pictogram.
Signal Word:	Warning
Hazard Statement(s):	May form combustible dust concentrations in air.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The following component(s) are considered hazardous in accordance with paragraph (d) of 29 CFR 1910.1200 [OSHA] or require disclosure as an air contaminant.

Chemical Name	CAS-No	Weight %	Substance Hazard Classification
TIAMULIN HYDROGENFUMARATE	55297-96-6	1% < x < 3%	Acute Tox. 4. (oral)

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 Contact with eyes may cause mechanical irritation.
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 (CO_2) Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media Avoid using an extinguishing method, such as a hose stream, that will cause dust to become suspended in the air.

Special hazards arising from the substance or mixture

Hazardous Combustion Products Carbon oxides, Nitrogen oxides (NOx).
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.
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
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.

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/m^3 (total dust) 8-hr TWA], [5 mg/m^3 (respirable) 8-hr TWA]. ACGIH TLV: [10 mg/m^3 (inhalable) 8-hr TWA], [3 mg/m^3 (respirable) 8-hr TWA].

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.	If exposed to airborne dust, safety goggles are recommended.
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	Tan
Physical State	Solid
Odor	No information available
Odor Threshold	No information available
pH	No information available
Flash Point	Not applicable (solid)
Autoignition Temperature	No information available
Boiling point	Not applicable (solid)
Melting/Freezing Point	No information available
Decomposition temperature	No information available
Oxidizing Properties	No information available
Flammability Limits in Air	No information available
Solubility(ies)	No information available
Evaporation Rate	Not applicable (solid)
Vapor Pressure	Not applicable (solid)
Vapor Density	Not applicable (solid)
Relative Density	No information available
Viscosity (kinematic)	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 Thermal decomposition may lead to release of, Carbon oxides, Nitrogen oxides (NOx).

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.
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 ingedients 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 ingedients 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 Contact with eyes may cause mechanical irritation.
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	Weight %	Fresh Water Algae	Acute Fish Toxicity	Daphnia (Water flea)
White mineral oil	3% < x < 5%		LC50: 96h 10000mg/L (Lepomis macrochirus)	

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

15. REGULATORY INFORMATION

International Inventories

As animal feed, this product is exempted from the following inventories: U.S.A. (TSCA).

USA

Federal Regulations

SARA 311/312 Hazardous Categorization
Refer to the OSHA hazard classification(s) provided in section 2 of this SDS.

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not known to contain chemicals at levels 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 (CERCLA/SARA). This product is not known to contain chemicals at levels which are expected to be subject to the reporting requirements of the Act or regulations contained in 40 CFR 103-302.

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 representative for ingredient details if needed.

16. OTHER INFORMATION

Prepared By:	ADM Animal Nutrition™
Revision Date:	09-Sep-2019
Revision Number:	1
Reason for revision:	Implementation into software system.

Literature References:
When available, hazard classifications for unreacted ingredients are obtained from supplier Safety Data Sheets.
Additional literature sources may include:
- CSST Répertoire toxicologique: 2015 WHMIS classification of chemical substances (http://www.csst.qc.ca/en/prevention/reptox/Pages/list-whmis-2015-a.aspx)
- European Chemicals Agency (http://echa.europa.eu)
- International Programme on Chemical Safety (IPCS) INCHEM website, which is provided in cooperation with the Canadian Centre for Occupational Health and Safety (CCOHS) (http://www.inchem.org)
- TOXNET HSDB: a database of the National Library of Medicine's TOXNET system (http://toxnet.nlm.nih.gov)

Abbreviations and acronyms
A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal 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)
Delisted - Substances Delisted from Report on Carcinogens
DNEL - Derived No Effect Level
DOT - U.S. Department of Transportation

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
IARC - International Agency for Research on Cancer
IDLH - Immediately Dangerous to Life or Health
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
NFPA - National Fire Protection Association
NIOSH - National Institute of Occupational Safety and Health
NOAEL - No Observed Adverse Effect Level
NTP - National Toxicology Program
OECD - Organisation for Economic Co-operation and Development
OSHA - Occupational Safety & Health Administration
OSHA PEL - Occupational Safety and Health Administration Permissible Exposure Limits
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
Skin notation - Potential for cutaneous absorbtion
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)
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

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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