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Monsanto Canada

Safety Data Sheet Commercial Product

PRODUCT AND COMPANY IDENTIFICATION

1.1. **Product identifier**

Nitragin® Gold Alfafa and Sweet Clover Pre-inoculant

1.1.1. Chemical name

Not applicable.

1.1.2. **Synonyms**

Nitragin Gold pre-inoculant nitrogen-fixing bacteria alfalfa and sweet clover

1.2. Product use

Microbial inoculant for Alfalfa and Sweetclover

1.3. **Company**

Monsanto Canada, 900 - One Research Road, Winnipeg, MB, R3T 6E3 **Telephone:** 204-985-1000 or 800-667-4944, **Fax:** 204-488-9599

E-mail: safety.datasheet@monsanto.com

1.4. **Emergency numbers**

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CANUTEC - Day or Night: 613-996-6666 (collect calls accepted) or MONSANTO: 314-694-4000 (collect calls accepted).

FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

HAZARDS IDENTIFICATION

2.1. Classification

Classification according to Regulation (EC) No. 1272/2008 [CLP] (manufacturer self-classification)

STOT SE - Category 3, Respiratory irritant

STOT RE - Category 1

2.2. Label elements

Hazard pictogram/pictograms



Signal word

Danger

Hazard statement/statements

H335

May cause respiratory irritation.

H372 Causes damage to lungs through prolonged or repeated exposure by

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inhalation.

Precautionary statement/statements

P260	Do not breathe dust
P270	Do not eat, drink or smoke when using this product.
P340	Remove victim to fresh air and keep at rest in a position

comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel P312

unwell.

Store in a well-ventilated place. Keep container tightly P403+233

closed.

P501 Dispose of contents/container in accordance with local

regulation.

2.3. Other hazards

0% of the mixture consists of ingredient/ingredients of unknown acute toxicity.

0% of the mixture consists of ingredient/ingredients of unknown acute oral toxicity.

0% of the mixture consists of ingredient/ingredients of unknown acute dermal toxicity.

2.3.1. Potential other effects

Read and follow label instructions.

May form combustible dust concentrations in air.

2.4. Appearance and odour (colour/form/odour)

White /Solid / Characteristic

Refer to section 11 for toxicological and section 12 for environmental information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substance:** Not applicable.

3.2. Mixture: Yes.

Composition/information on ingredients

Components	CAS No.	Concentration
Clay	1302-87-0	>98 %
Quartz, respirable dust	14808-60-7	>=0.064 - <=0.64 %
Titanium dioxide	13463-67-7	>=0.26 - <=1.29 %
Sinorhizobium meliloti		<=1.0 %

The specific chemical identity and/or concentration range is being withheld because it is trade secret information of Monsanto Company.

Active ingredient

None; {Not applicable}

FIRST AID MEASURES

Use personal protection recommended in section 8.

4.1. Description of first aid measures

4.1.1. Eye contact

Immediately flush with plenty of water. Continue for at least 15 minutes. If there are persistent symptoms, obtain medical advice.

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4.1.2. Skin contact

Take off contaminated clothing, wristwatch, jewellery. Wash affected skin with plenty of water. Wash clothes and clean shoes before re-use.

4.1.3. Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Get medical advice from a poison control center or doctor.

4.2. Most important symptoms and effects, both acute and delayed

4.2.1. **Potential health effects**

Likely routes of exposure: Skin contact, eye contact, inhalation

Eye contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

Inhalation, short term: May cause respiratory irritation. Causes damage to lungs through prolonged or repeated exposure by inhalation.

Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.2.2. Medical conditions aggravated by exposure:

Contains microorganisms which may have the potential to provoke sensitising reactions.

Opportunistic infections may occur in patients with compromised immune functions.

4.3. Indication of any immediate medical attention and special treatment needed

4.3.1. Advice to doctors

None

5. **FIRE-FIGHTING MEASURES**

5.1. Extinguishing media

5.1.1. **Recommended**: Water, Foam, Dry chemical, Carbon dioxide (CO2)

5.2. Special hazards

5.2.1. Unusual fire and explosion hazards

Minimise use of water to prevent environmental contamination. Environmental precautions: see section 6.

5.2.2. Hazardous products of combustion

Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Sulphur oxides (SOx), Hydrogen chloride (HCl)

5.3. **Advice for firefighters**

Self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

5.4. Flash point

None.

ACCIDENTAL RELEASE MEASURES

6.1. **Personal precautions**

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

6.2. Environmental precautions

Minimise spread. Contain spillage with sand bags or other means. Keep out of drains, sewers, ditches and water ways. Do NOT contaminate water when disposing of rinse waters.

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6.3. Methods for cleaning up

SMALL QUANTITIES: Flush spill area with water. LARGE QUANTITIES: Absorb in earth, sand or absorbent material. Dig up heavily contaminated soil. Collect in containers for disposal. Flush residues with small quantities of water. Minimise use of water to prevent environmental contamination.

Refer to section 13 for disposal of spilled material.

7. HANDLING AND STORAGE

7.1. **Precautions for safe handling**

Good industrial practice in housekeeping and personal hygiene should be followed. Do NOT taste or swallow. Avoid contact with eyes, skin and clothing. When using do not eat, drink or smoke. Wash hands thoroughly after handling or contact. Wash contaminated clothing before re-use. Avoid breathing vapours Thoroughly clean equipment after use. Do not contaminate drains, sewers and water ways when disposing of equipment rinse water. Refer to section 13 of the safety data sheet for disposal of

Emptied containers retain vapour and product residue. FOLLOW LABELLED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials for storage: Acids, bases, oxidizers, reducers, disinfectants, fungicides, and/or biocides may inactivate this product.

Read label for specific storage conditions. Keep container tightly closed in a cool, well-ventilated place. Store in a dry place. Avoid extremely high or low temperatures. Keep away from direct sunlight. Keep away from sources of ignition (sparks, flame, etc.)

7.3. Specific end use(s)

Not applicable.

EXPOSURE CONTROLS/PERSONAL PROTECTION 8.

8.1. **Control parameters**

Airborne exposure limits

Components	Exposure Guidelines
Clay	TLV (ACGIH): 10 mg/m3: inhalable fraction, PNOS (Particulates [insoluble or poorly soluble] Not Otherwise Specified) TLV (ACGIH): 3 mg/m3: respirable fraction, PNOS (Particulates [insoluble or poorly soluble] Not Otherwise Specified)
Quartz, respirable dust	TLV (ACGIH): 0.025 mg/m3 (TWA): respirable fraction
Titanium dioxide	TLV (ACGIH): 10 mg/m3
Sinorhizobium meliloti	No specific occupational exposure limit has been established.

8.2. **Exposure controls**

Engineering controls

No special requirement when used as recommended. If airborne exposure is excessive: Provide local exhaust ventilation.

Eye protection:

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> No special requirement when used as recommended. If there is potential for contact: Wear chemical goggles.

Skin protection:

No special requirement when used as recommended. If repeated or prolonged contact: Wear chemical resistant gloves. Chemical resistant gloves include those made of waterproof materials such as nitrile, butyl, neoprene, polyvinyl chloride (PVC), natural rubber and/or barrier laminate.

If there is significant potential for contact: Wear face shield. Wear chemical resistant clothing/footwear.

Respiratory protection:

No special requirement when used as recommended. If airborne exposure is excessive: Wear respirator.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

9.1 Information on basic physical and chemical properties

car and enemiear properties	
White	
Solid	
Characteristic	
No data.	
Physical form changes (melting, boiling, etc.):	
No data.	
Not applicable.	
None.	
No data.	
No data.	
No data.	
No data.	
Not applicable.	
No data.	
Water: Insoluble.	
No data.	
Not applicable.	

9.2 Other information

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	Evaporation rate:	Not applicable.	

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10. STABILITY AND REACTIVITY

10.1. Reactivity

None

10.2. Chemical stability

Stable under normal conditions of handling and storage.

10.3. Possibility of hazardous reactions

Hazardous polymerization: Does not occur.

10.4. Conditions to avoid

None

10.5. **Incompatible materials**

Incompatible materials for storage: Acids, bases, oxidizers, reducers, disinfectants, fungicides, and/or biocides may inactivate this product.

Compatible materials for storage: see section 7.2.

10.6. **Hazardous decomposition products**

Hazardous products of combustion: see section 5.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

11.1. **Information on toxicological effects**

Acute oral toxicity: Based on available data classification criteria are not met. Acute dermal toxicity: Based on available data classification criteria are not met. Acute inhalation toxicity: Based on available data classification criteria are not met. Skin corrosion/irritation: Based on available data classification criteria are not met.

Eve corrosion/irritation: Based on available data classification criteria are not met.

Skin sensitization: Based on available data classification criteria are not met.

Respiratory sensitization: Based on available data classification criteria are not met.

Mutagenicity: Based on available data classification criteria are not met.

Carcinogenicity: Based on available data classification criteria are not met.

Reproductive/Developmental Toxicity: Based on available data classification criteria are not met. Specific Target Organ Toxicity - Single Exposure: STOT SE - Category 3, Respiratory irritant

Specific Target Organ Toxicity - Repeated Exposure: Category 1

Aspiration hazard: Based on available data classification criteria are not met.

Most important symptoms and effects, both acute and delayed

Potential health effects

Likely routes of exposure: Skin contact, eye contact, inhalation

Eye contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

Inhalation, short term: May cause respiratory irritation. Causes damage to lungs through prolonged or repeated exposure by inhalation.

Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are followed.

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Medical conditions aggravated by exposure: Contains microorganisms which may have the potential to provoke sensitising reactions. Opportunistic infections may occur in patients with compromised immune functions.

Monsanto has not conducted toxicity studies on this product. Contains microorganisms which may have the potential to provoke sensitising reactions. Opportunistic infections may occur in patients with compromised immune functions.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Monsanto has not conducted environmental studies on this product.

12.1 **Toxicity**

No data.

Persistence and degradability 12.2

No data.

Bioaccumulative potential 12.3

Refer to section 9 for partition coefficient data.

12.4 Mobility in soil

No data.

12.5 Results of PBT and vPvB assessment

No data.

12.6 Other adverse effects

No data.

Additional information 12.7

If available, data obtained on similar products and/or on components are summarized below.

Bentonite

Aquatic toxicity, fish

Rainbow trout (Oncorhynchus mykiss):

Acute toxicity, 96 hours, static, LC50: 19,000 mg/L

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. **Product**

Follow all local/regional/national/international regulations on waste disposal. Follow current edition of the General Waste, Landfill, and Burning of Hazardous Waste Directives; and the Shipment of Waste Regulation. Disposal as hazardous waste can only be done in an authority-approved hazardous waste incinerator. Disposal in an incinerator with energy recovery is recommended. Keep out of drains, sewers, ditches and water ways.

13.1.2. **Container**

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> Follow all local/regional/national/international regulations on waste disposal, packaging waste collection/disposal. Follow current edition of the General Waste, Landfill, and Burning of Hazardous Waste Directives; and the Shipment of Waste Regulation. Do NOT re-use containers. Triple or pressure rinse empty containers and use rinsing water Properly rinsed containers can be disposed as non hazardous household waste. Store for collection by approved waste disposal service for household packaging waste. Containers that are not properly rinsed must be disposed as hazardous household or industrial waste. Store for collection by approved waste disposal service. This package meets the requirements for energy recovery. Disposal in a incinerator with energy recovery is recommended.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Transport of Dangerous Goods Regulations (TDG)

- **UN No.:** Not applicable. 14.1
- 14.2 Proper Shipping Name (Technical Name if required): Not regulated for domestic ground transportation.
- 14.3 Transport hazard class: Not applicable.
- Packing Group: Not applicable. 14.4
- Environmental hazards: Not applicable. 14.5
- 14.6 Special precautions for the user: Not applicable.

IMO

- 14.1 **UN No.:** Not applicable.
- Proper Shipping Name (Technical Name if required): Not regulated for transport under IMO 14.2 Regulations.
- 14.3 Transport hazard class: Not applicable.
- Packing Group: Not applicable. 14.4
- Environmental hazards: Not applicable. 14.5
- 14.6 Special precautions for the user: Not applicable.
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

IATA/ICAO

- 14.1 **UN No.:** Not applicable.
- Proper Shipping Name (Technical Name if required): Not regulated for transport under 14.2 IATA/ICAO Regulations.
- 14.3 Transport hazard class: Not applicable.
- 14.4 Packing Group: Not applicable.
- Environmental hazards: Not applicable. 14.5
- **Special precautions for the user:** Not applicable. 14.6

15. REGULATORY INFORMATION

15.1. Pest Management Regulatory Agency, Pest Control Products Act [PMRA PCPA]

Not regulated by PMRA.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.

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Follow all local/regional/national/international regulations.

Please consult supplier if further information is needed.

In this document the British spelling was applied.

|| Significant changes versus previous edition.

This Safety Data Sheet has been prepared following the Regulation (EC) No. 1907/2006 (Annex II) as last amended by Regulation (EC) No. 2015/830

In this document the British spelling was applied.

|| Significant changes versus previous edition.

Full denomination of most frequently used acronyms. BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest Observed Effect Concentration), LOEL (Lowest Observed Effect Level), MEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Adverse Effect Level), NOEC (No Observed Effect Concentration), NOEL (No Observed Effect Level), OEL (Occupational Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), STOT SE (Specific Target Organ Toxicity, Single Exposure), STOT RE (Specific Target Organ Toxicity, Repeated Exposure), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

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