

# Nitragin<sup>®</sup> Gold Film Coat

## MONSANTO Company - Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 10/06/2015

Version: 1.0

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Trade name : Nitragin<sup>®</sup> Gold Film Coat

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : *Sinorhizobium* film coat

#### 1.3. Details of the supplier of the safety data sheet

MONSANTO COMPANY, 800 N. Lindbergh Blvd., St. Louis, MO, 63167

Telephone: 800-332-3111, Fax: 314-694-5557

E-mail: safety.datasheet@monsanto.com

#### 1.4. Emergency telephone number

Emergency number : FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC - Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted). FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Comb. Dust May form combustible dust concentrations in air  
Carc. 1A May cause cancer  
STOT SE 3 May cause respiratory irritation  
STOT RE 1 Causes damage to organs through prolonged or repeated exposure

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

May form combustible dust concentrations in air  
May cause respiratory irritation  
May cause cancer  
Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) :

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Do not breathe dust  
Wash hands thoroughly after handling  
Do not eat, drink or smoke when using this product  
Use only outdoors or in a well-ventilated area  
Wear eye protection, protective gloves, protective clothing  
If inhaled: Remove person to fresh air and keep comfortable for breathing  
If exposed or concerned: Get medical advice/attention  
Call a poison center if you feel unwell  
Store in a well-ventilated place. Keep container tightly closed  
Store locked up  
Dispose of contents/container to comply with applicable local, national and international regulation.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Active ingredients:

Liquid medium of *Sinorhizobium meliloti* bacterium 0.0021% w/w

Name	Product identifier	%	GHS-US classification
Kaolin	(CAS No) 1332-58-7	44.27	STOT RE 1
Bentonite	(CAS No) 1302-78-9	22.71	STOT SE 3
Quartz	(CAS No) 14808-60-7	0.045 - 0.46	Carc. 1A STOT RE 1

Full text of H-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : 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 unwell.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

- Symptoms/injuries : Aggravates pre-existing medical conditions: chronic respiratory or skin disease. Causes damage to organs through prolonged or repeated exposure. Exposure to very high levels of airborne microbial spores may result in very rare respiratory impairments or cause an allergic reaction in sensitized individuals.
- Symptoms/injuries after inhalation : May cause cancer by inhalation. May cause respiratory irritation.
- Symptoms/injuries after eye contact : Dust from this product may cause eyes irritation.
- Chronic symptoms : Chronic inhalation of quartz dust causes lung disease.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : None known.
- Explosion hazard : Accumulation of airborne dusts may present an explosion hazard in the presence of an ignition source.
- Reactivity : Thermal decomposition generates : oxides of carbon.

#### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

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### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.  
Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials. Collect all waste in suitable and labelled containers and dispose according to local legislation.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure adequate ventilation. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Do not breathe dust.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practices. Wash exposed skin thoroughly with soap and water after handling. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container tightly closed.
- Incompatible materials : Acids. Bases. oxidizing agents. Reducing agents. Disinfectants, fungicides, and/or biocides may inactivate.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Kaolin (1332-58-7)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
Quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable fraction)
Titanium dioxide (13463-67-7)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>

### 8.2. Exposure controls

- Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Personal protective equipment : Protective goggles. Gloves. Protective clothing. Dust formation: dust mask. Avoid all unnecessary exposure.



- Hand protection : Wear protective gloves.
- Eye protection : Use safety glasses with side-shields or goggles.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.
- Other information : Do not eat, drink or smoke during use.

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: White solid.
Colour	: White
Odour	: Characteristic
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: Not applicable
Relative density	: No data available
Relative vapour density at 20 °C	: Not applicable
Solubility	: Water: Insoluble
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Stable.

#### 10.2. Chemical stability

Stable.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

None.

#### 10.5. Incompatible materials

Acids. Bases. oxidizing agents. Reducing agents. Disinfectants, fungicides, and/or biocides may inactivate.

#### 10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon monoxide. Carbon dioxide.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified  
(Based on available data, the classification criteria are not met)

#### Bentonite (1302-78-9)

LD50 oral rat	> 5000 mg/kg
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<b>Bentonite (1302-78-9)</b>	
LC50 inhalation rat (mg/l)	> 5.27 mg/l/4h (OECD 436)

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: May cause cancer.

<b>Quartz (14808-60-7)</b>	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list	Yes

<b>Titanium dioxide (13463-67-7)</b>	
IARC group	2B - Possibly carcinogenic to humans
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Symptoms/injuries after inhalation	: May cause cancer by inhalation. May cause respiratory irritation.
Symptoms/injuries after eye contact	: Dust from this product may cause eyes irritation.
Chronic symptoms	: Chronic inhalation of quartz dust causes lung disease.

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

<b>Nitragin<sup>®</sup> Gold Film Coat</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>Nitragin<sup>®</sup> Gold Film Coat</b>	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on ozone layer	: No additional information available
Effect on the global warming	: No additional information available
Other information	: Avoid release to the environment.

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

- Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Avoid release to the environment.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

- In accordance with DOT  
Not regulated for transport

#### TDG

- No additional information available

#### Transport by sea

- No additional information available

#### Air transport

- No additional information available

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

#### 15.2. International regulations

- No additional information available

#### National regulations

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This material is considered hazardous according to the criteria of the US OSHA Hazard Communication Standard (29 CFR 1910.1200).

#### 15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

##### Quartz (14808-60-7)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	No	No	No	

##### Titanium dioxide (13463-67-7)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	No	No	No	

### SECTION 16: Other information

- Abbreviations and acronyms : ACGIH (American Conference of Government Industrial Hygienists). CAS - Chemical Abstracts Service. GHS - Globally Harmonised System. HCS - Hazard Communication Standard. IARC (International Agency for Research on Cancer). OSHA - Occupational Safety and Health Administration. PEL- Permissible Exposure Level. STEL- Short-Term Exposure Limit . TWA- Time Weighted Average.

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Other information : None.

### Full text of H-statements:

Carc. 1A	Carcinogenicity, Category 1A
Comb. Dust	Combustible Dust
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H232	May form combustible dust concentrations in air
H335	May cause respiratory irritation
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure

SDS US (GHS HazCom 2012)

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