



Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 08/07/2015

Reviewed on 08/07/2015

1 Identification

· **Product identifier**

· **Trade name: TM-Biocontrol-1**

· **Product number:** EPA REG# 27586-1

· **Relevant identified uses of the substance or mixture and uses advised against:**

No further relevant information

· **Product description**

A biological insecticide for use to manage Douglas-Fir Tussock Moth infestations in wide area public pest control programs sponsored by government entities.

· **Details of the supplier of the safety data sheet:**

· **Manufacturer/Supplier:**

Forest Service
Forest Health Technology Enterprise Team
180 Canfield Street
Morgantown, WV 26505
Phone: 304-285-1566
Fax: 304-285-1564
www.fs.fed.us

· **Emergency telephone number:** 304-282-8373

2 Hazard(s) identification

· **Classification of the substance or mixture:**

The substance is not classified according to the Globally Harmonized System (GHS).

· **Label elements:**

· **GHS label elements:** Non-Regulated Material

· **Hazard pictograms:** Non-Regulated Material

· **Signal word:** Non-Regulated Material

· **Hazard statements:** Non-Regulated Material

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/information on ingredients

· **Chemical characterization: Substance**

· **CAS No. Description**

Douglas-fir tussock moth nucleopolyhedrovirus 14.6%

· **Impurities and stabilizing additives:** Insect parts and inert solids 85.4%

4 First-aid measures

· **Description of first aid measures:**

· **General information:** No special measures required.

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Trade name: TM-Biocontrol-1**· After inhalation:**

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

· After skin contact:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

· After eye contact:

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.

· After swallowing: If swallowed and symptoms occur, consult a doctor.**· Information for doctor:****· Most important symptoms and effects, both acute and delayed:** No further relevant information available.**· Indication of any immediate medical attention and special treatment needed:**

Note to physicians: Some individuals may exhibit symptoms of allergies and hypersensitivity.

5 Fire-fighting measures

· Extinguishing media:**· Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· Special hazards arising from the substance or mixture: No further relevant information available.**· Advice for firefighters:****· Protective equipment:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures: Not required.**· Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Containment and cleanup by placing in a sealable container for transport to an approved landfill or other disposal site.

· Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

* 7 Handling and storage

· Handling**· Precautions for safe handling:**

Keep out of the reach of children. Do not contaminate water, food, or feed by inappropriate storage and disposal.

· Information about protection against explosions and fires: No special measures required.**· Conditions for safe storage, including any incompatibilities:****· Storage****· Requirements to be met by storerooms and receptacles:**

Store in a cool, dark place. Avoid heat and sunlight. Freezing temperatures are recommended for long-term storage.

· Information about storage in one common storage facility: Not required.**· Further information about storage conditions:** None.

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- **Specific end use(s):** No further relevant information available.

* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
Provide general ventilation in processing and storage. Provide local exhaust if necessary to reduce dust levels below acceptable limits.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:**
Handlers must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95 when working outside of a protective enclosed cab or aircraft cockpit.
- **Protection of hands:**



Protective gloves

- **Eye protection:**



Safety glasses

* 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - **Form:** Powder
 - **Color:** Light brown
- **Odor:** Slightly musty
- **Odor threshold:** Not determined.
- **pH-value:** Acidic
- **Change in condition**
 - **Melting point/Melting range:** Not determined.
 - **Boiling point/Boiling range:** Not determined.
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:**
 - **Decomposition temperature:** Not determined.
- **Auto igniting:** Not determined.
- **Danger of explosion:** Product does not present an explosion hazard.



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- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapor pressure:** Not determined.
- **Density:**
 - Relative density:** Not determined.
 - Vapor density:** Not determined.
 - Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
 - Organic solvents:** 0.0 %
- **Other information:** No further relevant information available.

* 10 Stability and reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Do not store in direct sunlight or at temperatures above 80 °F.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

* 11 Toxicological information

- **Information on toxicological effects:**
- **Acute toxicity:**
- **Primary irritant effect:**
- **On the skin:** Mild irritant effect.
- **On the eye:** Mild irritant effect.
- **Other information (about experimental toxicology):**
The acute oral LD50 is greater than 5000 mg/kg-b.w. in rats; indicating that the product is practically non-toxic by ingesting a single dose. The acute dermal LD50 is greater than 2000 mg/kg-b.w. in rabbits; indicating that the material is no more than slightly toxic from exposure to the skin. The acute inhalation is greater than 2 mg/L, indicating that the product is practically non-toxic if inhaled. This product was found to be a temporary eye irritant to rabbits.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
The substance is not subject to classification.
- **Carcinogenic categories:**
- **IARC (International Agency for Research on Cancer):** Substance is not listed.

· **NTP (National Toxicology Program):**

Substance is not listed.



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· OSHA-Ca (Occupational Safety & Health Administration):
Substance is not listed.

12 Ecological information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Avoid direct application to water.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods:**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material. Wastes from this product may be disposed of on site or at an approved waste disposal facility.
- **Uncleaned packagings:**
- **Recommendation:**
Do not reuse empty containers but arrange for disposal in a sanitary landfill or by incineration
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number:**
- **DOT, ADN, IMDG, IATA** Non-Regulated Material
- **ADR** Non-Regulated Material
- **UN proper shipping name:** Not Regulated
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

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15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

· **Section 355 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

Substance is not listed.

· **California Proposition 65:**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency):**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH):**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

Substance is not listed.

· **GHS label elements** Non-Regulated Material

· **Hazard pictograms:** Non-Regulated Material

· **Signal word:** Non-Regulated Material

· **Hazard statements:** Non-Regulated Material

· **National regulations:**

Non-Regulated Material

· **State Right to Know:**

None of the ingredients are listed

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of preparation / last revision:** 08/07/2015 / 5

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways



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IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106