



MATERIAL SAFETY DATA SHEET

PRODUCT NAME: TM-Biocontrol
of *pseudotsugata*

CHEMICAL NAME: Nucleopolyhedrosis Virus
of the Douglas-fir Tussock Moth, *Orgia*

FORMULA: As a biological organism, this a.i. does not lend itself to characterization by normal pesticide criteria.

MOLECULAR WEIGHT: Not Applicable

SYNONYMS: Not Applicable

CHEMICAL FAMILY: Not Applicable

I. PHYSICAL DATA

BOILING POINT: Not Applicable

SPECIFIC GRAVITY (H₂O=1): Not Applicable

VAPOR DENSITY (AIR=1): Not Applicable

% VOLATILES BY VOLUME: Not Applicable

APPEARANCE AND ODOR: Dried Insect body parts and virus polyhedral; musty odor.

FREEZING POINT: Not Applicable

VAPOR PRESSURE (MM Hg): Not Applicable

EVAPORATION RATE (Butyl Acetate=1): Not Applicable

SOLUBILITY IN WATER (% by wt): Insoluble

II. HAZARDOUS INGREDIENTS

MATERIAL	PERCENT	TLV (Units)
Nucleopolyhedrosis virus		11.6% Not Applicable
Impurities: Insect parts and inert solids	88.4%	Not Applicable

This virus is non-toxic to warm blooded animals. Impurities may cause eye irritation.

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): Not Applicable

FLAMMABLE LIMITS: Not Applicable

EXTINGUISHING MEDIA: This material burns with difficulty. Use water on burning container.

SPECIAL FIRE FIGHTING PROCEDURES: None except to avoid inhalation of particulates released by fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Not Applicable

IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 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.

EFFECTS OF OVEREXPOSURE:	None known
EMERGENCY AND FIRST AID PROCEDURES	Remove from exposure situation. If in eyes, flush
and	with plenty of water. If irritation persists, get medical attention. If on skin, wash with soap
NOTES TO PHYSICIAN	water. Prolonged exposure may cause allergies and hypersensitivity in some individuals.

V. REACTIVITY DATA

STABILITY: UNSTABLE ☐ STABLE ☐	
CONDITIONS TO AVOID	Do not store in direct sunlight or at temperatures above 80° F.
INCOMPATIBILITY (materials to avoid)	Not Applicable
HAZARDOUS DECOMPOSITION PRODUCTS	Not Applicable
HAZARDOUS POLYMERIZATION: MAY OCCUR ☐ WILL NOT OCCUR ☐	
CONDITIONS TO AVOID	None

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN	Containment and cleanup by placing in a sealable container
IF MATERIAL IS RELEASED	for transport to an approved landfill or other disposal site.
OR SPILLED	
WASTE DISPOSAL METHOD	Burn empty bags or triple rinse containers and dispose of
of	them at an approved site. Waste from this product
may be	disposed of on site or at an approved disposal site.

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)	Use normal work clothing and medical face mask as appropriate.
VENTILATION:	
LOCAL EXHAUST	Preferable
MECHANICAL (general)	Acceptable
PROTECTIVE CLOTHING mixers.	Goggles and medical face mask are required by
OTHER PROTECTIVE	Have eyewash, soap, and water available at project

location.

EQUIPMENT

VIII. SPECIAL PRECAUTIONS

- | Keep out of reach of children.
- | Avoid direct application to water.
- | Do not contaminate water, food or feed by

inappropriate
PRECAUTIONARY LABELING

- | storage and disposal.
- | Only for use as a biological insecticide for wide-area

public

- | Douglas-fir tussock moth control programs sponsored

by

- | government entities, and limited to forest and non-
- | commercial trees.
- | Avoid heat and direct sunlight. Freezing temperatures

are

- | recommended for long-term storage.
- | Wastes from this product may be disposed of on site or

OTHER HANDLING AND

at

STORAGE CONDITIONS

- | an approved waste disposal facility.
- | Do not reuse empty containers but arrange for disposal

in

- | a sanitary landfill or by incineration.

DEPARTMENT OF
TRANSPORTATION

HAZARD CLASSIFICATION: Non-hazardous, non-toxic

EPA REGISTRATION #

SHIPPING NAME: Nucleopolyhedrosis Virus
27586-1

NAME

Nucleopolyhedrosis Virus

The USDA Forest Service (FS) believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted. The data are not to be taken as a warranty or representation for which the FS assumes legal responsibility. They are offered solely for your cooperation, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State and local laws and regulations.

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