

Nichino America, Inc. CONVOY® Fungicide Safety Data Sheet

1. IDENTIFICATION

Product Name: CONVOY Fungicide
Recommended Use: Fungicide
EPA Reg. No.: 71711-28

Manufacturer
Main Headquarters: Nihon Nohyaku Co., Ltd., Kyobashi OM Building, 19-8
Kyobashi 1-chome, Chuo-ku, Tokyo 104-8386 JAPAN

US Connection: Nichino America Inc.
4550 New Linden Hill Road, Suite 501
Wilmington, Delaware 19808, USA
Phone: 302-636-9001
Fax: 302-636-9122

Emergency and health and safety inquiries: (800) 348-5832 (24 hours)
In case of fire or spills: (800) 424-9300 (24 hours)
In case of international shipments: (703) 527-3887 (24 hours)

2. HAZARD(S) IDENTIFICATION

Classified according to OSHA 29 CFR 1910.1200 HCS

Classification: Not classified
Signal Word: None
Hazard Statements: None
Precautionary Statements: None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Percentage
Flutolanil CAS name: Benzamide, N-[3-(1-methylethoxy)phenyl]-2-(trifluoromethyl)-	66332-96-5	40%
Other ingredients*		60%

*Specific chemical identity and percentage of composition withheld as a trade secret

4. FIRST AID MEASURES

Eye Contact

Causes eye irritation. 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. Call a poison control center or doctor for treatment advice.

Ingestion

Harmful if swallowed. Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Skin Contact

Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Most important symptoms and effects, both acute and delayed

Refer to Section 11 for Toxicological Information.

5. FIRE FIGHTING MEASURES

Suitable extinguishing Media	Foam, dry chemical powder, carbon dioxide or water (spray)
Unsuitable extinguishing media	No information available
Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products)	Combustion or thermal decomposition may evolve toxic vapors (CO ₂ , CO, NO _x)
Special protective equipment and precautions for fire-fighters	Firefighters should wear full protective clothing and self-breathing apparatus. Avoid inhalation of dust and gas and contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

General and Disposal: Use proper protective equipment to minimize personal exposure (see Section 8). Take all necessary action to prevent and to remedy the effects of the spill. Ensure that the disposal is in compliance with federal or local disposal regulations (see Section 13). Notify the appropriate authorities immediately (see Section 15 for any applicable Reportable Quantity (RQ)). Report to authorities if water enters watercourse or sewer.

Land Spill or Leak:

Liquid spills on the floor or other impervious surfaces should be contained or diked and then absorbed with sawdust, sand, bentonite, or other absorbent clay. Collect contaminated absorbent, and place it in a metal drum. Thoroughly scrub the floor or other impervious surface with a strong industrial-type detergent and rinse with water.

Liquid spills that soak into the ground should be dug up and placed in metal drums. When a large spill or leakage is found, wear protective clothing and respirator to avoid exposure.

Avoid contaminated absorbents or water flow into ponds, rivers, and lakes, due to the danger of acute toxicity to aquatic organisms.

7. HANDLING AND STORAGE

Handling Precautions:

- Open container with care.
- Use adequate ventilation.
- Avoid handling near an open flame or heat source or ignition source.
- Do not contaminate water by cleaning of equipment or disposal of waste.
- Avoid contact with skin, eyes, or clothing.
- Do not eat, drink, smoke, or chew gum or tobacco while handling this product and until hands and face are thoroughly washed with soap and water.
- Do not use the toilet before thoroughly washing hands.
- Remove contaminated clothing immediately and wash thoroughly before reuse.

Storage Precautions:

- Store in original container, and keep tightly closed when not in use.
- Store in a cool, dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

(Local exhaust): When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

Ventilation may be necessary under certain confined conditions. If practical, use ventilation at the sources of air contamination. Control airborne contaminants below the exposure guidelines (see below for any applicable OSHA / ACGIH exposure limits).

Personal Protective Equipment (PPE):

Eye/Face Protection: None required

Skin Protection: Wear long-sleeved shirt, long pants, chemical resistant gloves made of any waterproof material such as barrier laminate or polyvinyl chloride, socks, and shoes

Respiratory Protection: None required

Exposure Limits: None

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Off-white wettable viscous suspension liquid
Odor	No detectable odor
Odor Threshold	No data available
pH	6.68
Melting point/freezing point	Flutolanil TGAI: 101.2 – 103.2°C
Initial boiling point and boiling range	Flutolanil TGAI: 325°C
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	Auto-inflammable with a self-ignition temperature of 490°C
Upper/lower flammability or explosive limits	Not applicable
Vapor pressure	Flutolanil TGAI: 4.1×10^{-7} Pa at 20°C
Vapor density	No data available
Relative density	1.134 g/cm ³ at 20°C
Solubility(ies)	Flutolanil TGAI: 8.01 µg/mL (water)
Partition coefficient (n-octanol/water)	Flutolanil TGAI: 1478 @ 21°C
Auto-ignition temperature	490°C
Decomposition temperature	No data available
Kinematic viscosity	425 cSt

TGAI = Technical Grade Active Ingredient

10. STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	This product is stable for at least 1 year under normal warehouse conditions
Possibility of hazardous reactions	None known
Conditions to avoid	Extreme heat
Incompatible materials	None known
Hazardous decomposition products	None known

11. TOXICOLOGICAL INFORMATION

The following data were developed using CONVOY Fungicide:

Acute Studies:

Oral LD₅₀ (rat):	> 5000 mg/kg for female rats
Dermal LD₅₀ (rat):	> 4000 mg/kg body weight in both sexes
Inhalation LC₅₀ (rat):	> 2 mg/L (Category IV)
Eye irritation (rabbit):	Slight irritant
Skin irritation (rabbit):	Non-irritant
Skin sensitization (guinea pig):	Not a skin sensitizer

The following data were developed using flutolanil technical:

Chronic Effects:

The primary effects of flutolanil are increases in liver weight combined with decreases in body weight. Flutolanil is not neurotoxic, carcinogenic or mutagenic and is not a developmental or reproductive toxicant.

Also noted in the subchronic studies at high doses were slight increases in absolute and relative thyroid/parathyroid weights in rats and dogs. Lower body weight gains were noted. There were no other signs of treatment related toxicity.

Cancer Effects:

Not likely to be carcinogenic to humans.

Teratogenicity (Birth Defects):

No evidence of treatment related developmental toxicity tested at limit dose of 1000 mg/kg/day.

Reproductive Effects:

There is no evidence of reproductive toxicity.

Neurotoxicity:

Evaluation of the available data for flutolanil did not reveal any clinical signs, clinical chemistry changes, and/or histopathology to indicate that it is neurotoxic.

Immunotoxicity:

Evaluation of the available data for flutolanil did not reveal any hematological effects, or effects on the thymus or spleen, indicative of potential immunotoxicity.

Mutagenicity (Genetic Effects):

The weight of evidence indicates that flutolanil is neither mutagenic nor genotoxic.

12. ECOLOGICAL INFORMATION

Environmental Hazards:

This product is toxic to fish and aquatic invertebrates. For terrestrial uses, except when applying over rice crops: do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water.

This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of flutolanil from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

To reduce hazard to birds and other wildlife, cover or collect treated seed spilled during loading and planting.

Dispose of all excess treated seed and seed packaging by burial away from bodies of water.

Environmental Precautions:

Do not discharge effluent containing this product directly into lakes, streams, ponds, estuaries, oceans or public waters unless this product is specifically identified and addressed in a NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your state water board or regional office of the Environmental Protection Agency.

13. DISPOSAL CONSIDERATIONS

General Disposal:

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Any disposal practice must be in compliance with all federal, state/provincial, and local laws and regulations. State (provincial) and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Chemical additions, processing, storage or otherwise altering this material may make the waste disposal information presented in this MSDS incomplete, inaccurate, or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.

Refer to appropriate federal (RCRA: 40 CFR.261), state/provincial, or local requirements for proper classification information. For regulatory information on the ingredient components, see Section 15.

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:

Nonrefillable plastic container (Less than 5 gallons)

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Nonrefillable plastic container (Greater than 5 gallons)

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete

revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Or, if too large to be tipped, rolled, or turned upside down, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Nonrefillable metal container (Greater than 5 gallons)

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Or, if too large to be tipped, rolled, or turned upside down, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

14. TRANSPORT INFORMATION

DOT:	Not regulated
IATA:	UN 3082, Environmentally hazardous substance, liquid, n.o.s., (flutolanil, ethylene glycol), Class 9, PG III.
IMDG:	UN 3082, Environmentally hazardous substance, liquid, n.o.s., (flutolanil, ethylene glycol), Class 9, PG III, MARINE POLLUTANT, EmS: F-A, S-F

CONVOY Fungicide is not regulated for transport unless shipped by water or air.

15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Harmful if swallowed or absorbed through skin.

U.S. Federal Regulatory Information:

EPA Registration Number: 71711-28

TSCA Inventory: Registered pesticide; exempt from TSCA

SARA Title III Notification and Information:

Section 302 (EHS) Ingredients: None

Section 304 (EHS) or CERCLA Ingredients (RQ): None

Section 313 Ingredients: None

U.S. State Regulatory Information:

U.S. State Right-to-Know (RTK) Ingredients: None

16. OTHER INFORMATION

HMIS® Hazard Rating:

Health: 1

Flammability: 1

Physical Hazard: 1

NFPA Hazard Rating:

Health: 2b
Flammability: 1
Reactivity: 0
Specific Hazard: None

Prepared by: Regulatory Affairs
Date: 12/21/15
Reason for editing: Updated Section 14

Disclaimer of Expressed and Implied Warranties:

This information is provided in good faith but without express or implied warranty. Buyer assumes all responsibility for safety and use not in accordance with FIFRA label instructions.