

# 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.  
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**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

<b>Suitable extinguishing Media</b>	Foam, dry chemical powder, carbon dioxide or water (spray)
<b>Unsuitable extinguishing media</b>	No information available
<b>Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products)</b>	Combustion or thermal decomposition may evolve toxic vapors (CO <sub>2</sub> , CO, NO <sub>x</sub> )
<b>Special protective equipment and precautions for fire-fighters</b>	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

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

TGAI = Technical Grade Active Ingredient

### 10. STABILITY AND REACTIVITY

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

## 11. TOXICOLOGICAL INFORMATION

The following data were developed using CONVOY Fungicide:

### Acute Studies:

<b>Oral LD<sub>50</sub> (rat):</b>	> 5000 mg/kg for female rats
<b>Dermal LD<sub>50</sub> (rat):</b>	> 4000 mg/kg body weight in both sexes
<b>Inhalation LC<sub>50</sub> (rat):</b>	> 2 mg/L (Category IV)
<b>Eye irritation (rabbit):</b>	Slight irritant
<b>Skin irritation (rabbit):</b>	Non-irritant
<b>Skin sensitization (guinea pig):</b>	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

<b>DOT:</b>	Not regulated
<b>IATA:</b>	UN 3082, Environmentally hazardous substance, liquid, n.o.s., (flutolanil, ethylene glycol), Class 9, PG III.
<b>IMDG:</b>	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  
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**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.