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## MATERIAL SAFETY DATA SHEET

MSDS No. 501-130 (M04-27)

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### 1.1 Identification of the preparation

Product name: **APPLAUD 25SC**

#### 1.2 Use of the preparation

Insecticide for agriculture

#### 1.3 Company/undertaking identification

Manufacturer

Nihon Nohyaku Co., Ltd.

19-8, Kyobashi 1-Chome, Chuo-Ku, Tokyo 104-8386, JAPAN  
(ENVIRONMENT SAFETY DEPT. / Phone: 81-3-6361-1426  
e-mail: kankyouanzen@nichino.co.jp)

Emergency telephone number

OVERSEAS DIVISION, Nihon Nohyaku Co., Ltd.

19-8, Kyobashi 1-Chome, Chuo-Ku, Tokyo 104-8386, JAPAN  
Phone: 81-3-6361-1425 Facsimile: 81-3-6361-1456

UK Connection: Nichino Europe Co., Ltd.

5 Pioneer Court, Vision Park, Histon, Cambridge CB24 9PT, UK  
Phone: 44-1223-200212 Facsimile: 44-1223-233119

USA Connection: Nichino America, Inc.

4550 New Linden Hill Road, Suite 501, Wilmington,  
Delaware 19808, USA

Phone: 1-302-636-9001 Facsimile: 1-302-636-9122

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Ingredient and composition

Active ingredient: (Z)-2-*tert*-butylimino-3-isopropyl-5-phenyl-1,3,5-thiadiazinan-4-one (Common name: buprofezin)

Components

Buprofezin 25.0% (CAS No.953030-84-7)

Inert ingredients<sup>#1</sup> 75.0%<sup>#1</sup>Propylene glycol, surface active agent and water

### 3. HAZARD IDENTIFICATION

Classification (UN classification): Class 9, Environmentally hazardous substance

Physical and chemical hazards: Not applicable

Adverse human health effects: Risk of mild eye irritation

Environmental effects: Toxic to aquatic organisms.

### 4. FIRST-AID MEASURES

Eye contact: Flush eyes with plenty of water at least 15 minutes. If irritation persists, get medical aid.

Skin contact: Remove contaminated clothing. Wash with large quantities of water and soap. If irritation occurs, get medical aid. Contaminated clothing should be washed before re-use.

Ingestion:	If swallowed, rinse mouth with water, and give one or two glasses of water to drink. Keep patient at rest and get medical aid. Do not induce vomiting.
Inhalation:	Remove individual to fresh air. Get medical aid if ill effects occur.

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## 5. FIRE-FIGHTING MEASURES

Fire-fighting procedure:	Firefighters and others that may be exposed should wear full protective clothing and self-breathing apparatus. Avoid extinguishing media such as water, foam, and dry chemicals flow into pond, river and lake.
Unusual fire or explosion hazard:	None
Hazardous combustion products:	Carbon dioxide, carbon monoxide and nitrogen oxides etc.
Extinguishing media:	Water spray, Foam, Dry chemical powder, Carbon dioxide

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## 6. ACCIDENTAL RELEASE MEASURES

Evacuate non-essential personnel. Wear proper equipment. Carefully adsorb spillage onto sand, soil or any suitable adsorbent material. Transfer to a container for disposal. Wash the spillage area with water. Washings should not be poured into drains or waterway. Prevent spillage from entering sewers, watercourse or low areas.

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## 7. HANDLING AND STORAGE

Handling:	Use with adequate ventilation. Avoid contact with skin and eyes. Do not breathe mist or vapor. Wash face and hands thoroughly with soap and water after handling.
Storage:	Avoid direct sunlight. Store in a cool, dry and well-ventilated place. Keep in original containers, tightly closed. Keep away from food, drink and animal feeding stuffs and out of reach of children. Keep locked up.

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## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

### 8.1 Exposure limits values

Buprofezin: 2 mg/m<sup>3</sup> (JAPAN SOCIETY FOR OCCUPATIONAL HEALTH)

### 8.2 Exposure control

Engineering controls:	If practical, use with adequate ventilation in the working area. Make available in the work area emergency shower and eye wash.
Personal protective equipment:	
Respiratory protection:	Wear approved respiratory protection equipment.
Eye protection:	Wear chemical safety goggles.
Skin protection:	Wear suitable protective clothing and gloves to prevent skin contact. Wash contaminated skin promptly.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Whitish suspension
Odor:	Not available
Bulk density:	1.06-1.08 g/ml

pH: No data available  
Flash point: Not applicable

## 10. STABILITY AND REACTIVITY

Chemical stability: This product is stable for at least 2 years when stored in the unopened sales container under normal warehouse conditions.

Incompatibility with other materials: Not known

Hazardous decomposition products: Combustion or thermal decomposition will evolve toxic and irritant vapors (CO, NO<sub>x</sub>, SO<sub>x</sub>, etc.).

Hazardous polymerization: Not known

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Oral:	Rat	LD <sub>50</sub> (mg/kg)	male, female >2000
Dermal:	Rat	LD <sub>50</sub> (mg/kg)	male, female >2000
Inhalation:	Unlikely to cause harmful effects under normal conditions of handling and use.		
Eye contact:	Rabbit		Slightly irritating
Skin contact:	Rabbit		None irritating
Sensitization:	Guinea pig		Negative

## 12. ECOLOGICAL INFORMATION

### Aquatic organism toxicity

Rainbow trout	LC <sub>50</sub> (96h)	>630 mg/L	
Carp	LC <sub>50</sub> (96h)	>30 mg/L	
Daphnia magna	EC <sub>50</sub> (48h)	>30 mg/L	
Algae <sup>#2</sup>	ErC <sub>50</sub> (72h)	>30 mg/L	<sup>#2</sup> <i>Pseudokirchneriella subcapitata</i>

## 13. DISPOSAL CONSIDERATIONS

Excess pesticide and rinsate should be disposed of according to label instructions and/or local regulations. Do not dump into sewers, on the ground or into any body of water. Dispose used container according to the local regulations. Repealing liquid containing buprofezin should be avoided to flow into river, pond and lake.

## 14. TRANSPORT INFORMATION

Follow the precaution indicated in the HANDLING AND STORAGE section. Confirm that the material does not leak and treat carefully not to break the packing. Follow all regulations in your country.

UN Classification: Class 9, UN No.3082 (Environmentally hazardous substance, liquid, N.O.S. (contains buprofezin))

Packing group III

IMDG Code: Marine pollutant

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**15. REGULATORY INFORMATION**

Users should ensure that they comply with any relevant local, state or national legislation.

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**16. OTHER INFORMATION**

The information herein is given in good faith, but not warranty. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of product. It is not applicable to unusual or non-standard uses of product, nor where instructions or recommendations are not followed.

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