Nichino America, Inc.
BEXAR® Insecticide
Safety Data Sheet

1. IDENTIFICATION

Product Name: BEXAR Insecticide
General Use: Insecticide
Product Description: Suspension Concentrate
EPA Reg. No.: 71711-36

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:
- Acute Toxicity (Oral): Category 4
- Acute Toxicity (Inhalation): Category 2
- Specific Target Organ Toxicity (Repeated Exposure): Category 1
- Specific Target Organ Toxicity (Repeated Exposure): Category 2

Signal Word: DANGER
Hazard Statements:
- Harmful if swallowed
- Fatal if inhaled
- Causes damage to organs (liver, pancreas, and reproductive) through prolonged or repeated exposure
- May cause damage to organs (heart) through prolonged or repeated exposure

Precautionary Statements:

Prevention:
- Do not breathe mist, vapors and/or spray.
- Wash thoroughly after handling.
- Do not eat, drink, or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Wear respiratory protection.

Response:
- If INHALED: Remove victim to fresh air and keep comfortable for breathing.
- Immediately call a POISON CENTER or doctor/physician.
- Specific treatment is urgent, see supplemental first aid information.
- If SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- Rinse mouth.
- Get medical advice/attention if you feel unwell.

Storage:
- Store in a well-ventilated place.
- Keep container tightly closed.
- Store locked up.

Disposal:
- Dispose of contents/container in accordance with local/regional/national and/or international regulations.
### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolfenpyrad CAS name: 1H-Pyrazole-5-carboxamide (4-chloro-3-ethyl-1-methyl-N-[[4-(4-methylphenoxy) phenyl]methyl]</td>
<td>129558-76-5</td>
<td>15.0%</td>
</tr>
<tr>
<td>*Other ingredients</td>
<td></td>
<td>85.0%</td>
</tr>
</tbody>
</table>

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

### 4. FIRST AID MEASURES

**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. Call a poison control center or doctor for treatment advice.

**Ingestion**  
Call a 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 a poison control center or doctor. Do not give anything to an unconscious person.

**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. Call a poison control center or doctor for treatment advice.

**Skin Contact**  
Take off contaminated clothing. Rinse skin immediately with plenty of 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.
Most important symptoms and effects, both acute and delayed

Refer to Section 11 for Toxicological Information.

5. FIRE FIGHTING MEASURES

| Suitable extinguishing media | Water, foam, dry powder, or carbon dioxide. |
| Unsuitable extinguishing media | No information available |
| Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products) | Carbon dioxide, carbon monoxide, and nitrogen oxides. |
| Special protective equipment and precautions for fire-fighters | Firefighters should wear positive pressure, self-contained breathing apparatus. Avoid permitting extinguishing media, such as water, foam, and dry chemicals, flow into ponds, rivers, and lakes |

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 and wash contaminated clothing before reuse.

**Storage Precautions:**
- Keep container closed. Store in original container.
- Do not use or store near heat or open flame.
- Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls (Local exhaust):** Ventilation may be necessary under certain confined conditions. If practical, use ventilation at the source 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:** Wear protective eyewear (safety glasses for chemical workers, goggles or face shield) to prevent eye contact.
Skin Protection: Wear long-sleeved shirt and long pants, socks, shoes, and gloves. Remove and wash contaminated clothing before reuse.

Respiratory Protection: Ensure good ventilation. Avoid breathing mist. If ventilation is inadequate, use approved respiratory protection equipment (combination or gas/vapor respirator) when handling large quantities or handling large spills.

Exposure Limits: None

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White to off-white non-transparent viscous liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Faint odor (slightly amide-like)</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>7.85 (as a 1% w/w solution)</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>None</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>$4 \times 10^{-5}$ Pa at 25°C (tolfenpyrad TGAI)</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.05 g/mL at 20°C</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Water: 0.061 mg/L at 20°C (for tolfenpyrad pure active ingredient)</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Log Pow = 5.61 (25°C)</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&gt; 250°C (tolfenpyrad TGAI)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>436.853 mm²/s (cSt) at 20°C and 247.876 mm²/s (cSt) at 40°C</td>
</tr>
</tbody>
</table>

TGAI = Technical Grade Active Ingredient

10. STABILITY AND REACTIVITY
### Reactivity
None known

### Chemical stability
Stable for one year under ambient temperatures 18 to 27 ºC

### Possibility of hazardous reactions
None known

### Conditions to avoid
None known

### Incompatible materials
None known

### Hazardous decomposition products
Combustion or thermal decomposition may evolve toxic vapors (CO, NOx etc.).

## 11. TOXICOLOGICAL INFORMATION

The following data were developed using BEXAR Insecticide:

### Acute Studies:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD$_{50}$ (rat):</td>
<td>886.4 mg/kg (female)</td>
</tr>
<tr>
<td>Dermal LD$_{50}$ (rat):</td>
<td>&gt; 5000 mg/kg (male and female)</td>
</tr>
<tr>
<td>Inhalation LC$_{50}$ (rat):</td>
<td>0.35 mg/L (4 hrs.) (female)</td>
</tr>
<tr>
<td>Eye irritation (rabbit):</td>
<td>Moderate eye irritation</td>
</tr>
<tr>
<td>Skin irritation (rabbit):</td>
<td>Moderate skin irritation</td>
</tr>
<tr>
<td>Skin sensitization (guinea pig):</td>
<td>Non-sensitizer</td>
</tr>
</tbody>
</table>

The following data were developed using tolfenpyrad technical:

### Subchronic and Chronic Effects:

In a 13-week subchronic oral toxicity study in rats, the no effect level was 1.0 mg/kg/day. Low body weight and increased relative liver and kidney weights were observed as were some alterations in hematological and blood chemistry parameters. These effects dissipated after withdrawal of treatment.

In a 13-week oral toxicity study in mice, the no effect level was 46.2 mg/kg. Effects observed were decreased food consumption.

In a long term study in beagle dogs, the NOAEL was 5 mg/kg. Effects observed were emesis and decreases in body weight. Liver effects were also observed.
Cancer Effects:
Tolfenpyrad was tested in life-time studies in rats and mice. There was no evidence of carcinogenicity in the rat or mice at the doses tested. In the two-year chronic oral study in rats, the NOAEL was 0.6 mg/kg/day, based on decreased body weight. Liver and kidney effects were observed. In the 78-week dietary oncogenicity study in mice, the NOAEL was 2.2 mg/kg/day, with decreases in body weight observed.

Teratogenicity (Birth Defects):
Tolfenpyrad is not a developmental toxicant.

Reproductive Effects:
Tolfenpyrad is not a reproductive toxicant.

Neurotoxicity:
There was no evidence of neurotoxicity after oral exposure in acute or subchronic studies conducted with tolfenpyrad.

Immunotoxicity:
No significant treatment-related effects on the immune system were observed in a developmental immunotoxicity study in rats.

Mutagenicity (Genetic Effects):
Tolfenpyrad was not mutagenic or genotoxic.

12. ECOLOGICAL INFORMATION

Ecological data were developed using tolfenpyrad technical.

Environmental Precautions:

Tolfenpyrad technical is very highly toxic to fish and aquatic invertebrates.

For terrestrial uses, 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 apply when weather conditions favor drift from treated areas. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.
This product is highly toxic to bees and other pollinating insects exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees or other pollinating insects are visiting the treatment area. Application must be made at least 8 hours prior to bees foraging.

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 medium to high potential for reaching both surface water and aquatic sediment via runoff for several weeks after application. A level, well-maintained vegetative filter (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 this chemical from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product’s potential to reach aquatic sediment via runoff.

13. DISPOSAL CONSIDERATIONS

General Disposal Guidance:
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 container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining content into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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.

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 incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

<table>
<thead>
<tr>
<th>14. TRANSPORT INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT:</td>
</tr>
<tr>
<td>IATA:</td>
</tr>
<tr>
<td>IMDG:</td>
</tr>
</tbody>
</table>

BEXAR Insecticide is **not regulated for transport** unless shipped by water or air.

<table>
<thead>
<tr>
<th>15. REGULATORY INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 hazard information as required on the pesticide label:</td>
</tr>
</tbody>
</table>

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WARNING
May be fatal if inhaled.
Harmful if swallowed or if absorbed through skin.
Causes moderate eye irritation.

U.S. Federal Regulatory Information:
EPA Registration Number: 71711-36
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

California Proposition 65 List: None

16. OTHER INFORMATION

HMIS® Hazard Rating:
Health: 3*
Fire: 1
Physical Hazard: None

*indicates both acute and chronic health hazard

NFPA Hazard Rating:
Health: 3
Fire: 1
Reactivity: 0
Specific Hazard: 0

Prepared by: Regulatory Affairs
Date: 12/21/2015
Reason for editing: Updated Section 14.
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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.