Bayer Environmental Science

Material Safety Data Sheet
BAYER ADVANCED 3-IN-1 INSECT, DISEASE, & MITE CONTROL READY-TO-USE

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: BAYER ADVANCED 3-IN-1 INSECT, DISEASE, & MITE CONTROL READY-TO-USE
MSDS Number: 102000015314
EPA Registration No.: 72155-71

Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-800-331-2867

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Average % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidacloprid</td>
<td>138261-41-3</td>
<td>0.012</td>
</tr>
<tr>
<td>tau-Fluvalinate</td>
<td>102851-06-9</td>
<td>0.014</td>
</tr>
<tr>
<td>Tebuconazole</td>
<td>107534-96-3</td>
<td>0.015</td>
</tr>
<tr>
<td>1-Propanol</td>
<td>71-23-8</td>
<td>1.00</td>
</tr>
</tbody>
</table>

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview: Caution! Harmful if inhaled or absorbed through skin. Avoid breathing spray mist. Avoid contact with skin, eyes and clothing. Highly toxic to fish. Highly toxic to aquatic invertebrates. Toxic to bees.

Physical State: liquid, clear

Appearance: colourless

Routes of Exposure: Inhalation, Skin Absorption, Eye contact, Ingestion

Immediate Effects:
Eye: Avoid contact with eyes.
Skin: Harmful if absorbed through skin. Avoid contact with skin and clothing.
Ingestion: Do not take internally.
Inhalation: Harmful if inhaled. Avoid breathing spray mist.
SECTION 4. FIRST AID MEASURES

General
When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

Eye
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 eye. Call a physician or poison control center immediately.

Skin
Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Call a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Inhalation
Move 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 physician or poison control center immediately.

Notes to Physician Treatment
There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient’s condition is recommended.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point
> 93.4 °C / 200.1 °F

Suitable Extinguishing Media
water spray, foam, carbon dioxide (CO2), dry chemical

Fire Fighting Instructions
Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Dike area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated.

Wear self contained breathing apparatus for fire fighting if necessary. Wear full protective suit.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.

Methods for Cleaning Up
Take up with absorbent material (e.g. sand, diatomaceous earth or a proprietary absorbent material). Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional Advice
Use personal protective equipment. Do not allow product to enter streams, sewers or other waterways.

SECTION 7. HANDLING AND STORAGE

Handling Procedures
Keep away from food, drink and animal feeding stuffs.

Storing Procedures
Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection
There are no known hazards associated with this product when used according to the label directions. The following guidelines should be followed.

Avoid inhalation of vapour or mist. Avoid contact with skin and eyes.

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Do not allow children or pets to enter the treated area until it has dried.

Exposure Limits

<table>
<thead>
<tr>
<th>1-Propanol</th>
<th>ACGIH</th>
<th>TWA</th>
<th>200 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ACGIH</td>
<td>STEL</td>
<td>400 ppm</td>
</tr>
<tr>
<td></td>
<td>ACGIH NIC</td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td>NIOSH</td>
<td>REL</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td>NIOSH</td>
<td>STEL</td>
<td>250 ppm</td>
</tr>
<tr>
<td></td>
<td>OSHA Z1</td>
<td>PEL</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td>OSHA Z1A</td>
<td>TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td>OSHA Z1A</td>
<td>STEL</td>
<td>250 ppm</td>
</tr>
<tr>
<td></td>
<td>US CA OEL</td>
<td>TWA PEL</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td>US CA OEL</td>
<td>STEL</td>
<td>250 ppm</td>
</tr>
</tbody>
</table>
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance  colourless

Physical State  liquid, clear

pH  <= 5.5 (100 %) (undiluted)

Density  ca. 0.996 g/cm³ at 20 °C

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability  Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been performed on this product as formulated. The non-acute information pertains to the technical-grade active ingredients, imidacloprid, tau-fluvalinate and tebuconazole.

Acute Oral Toxicity  female rat: LD50: > 2,000 mg/kg

Acute Dermal Toxicity  male/female rat: LD50: > 4,000 mg/kg

Acute Inhalation Toxicity  male/female rat: LC50: > 6.6 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
(actual)

male/female rat: LC50: > 26.4 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.
(actual)

Skin Irritation  rabbit: Non-irritant.

Eye Irritation  rabbit: Non-irritant.

Sensitization  guinea pig: Non-sensitizing.

Chronic Toxicity  IMIDACLOPRID caused liver and/or thyroid effects in chronic studies in rats and dogs.
TAU-FLUVALINATE caused clinical signs of pyrethroid toxicity, decreased body weights and/or liver effects in chronic toxicity studies in rats and dogs.
TEBUCONAZOLE caused liver, spleen, adrenal and/or eye effects at high doses in chronic studies in rats and dogs.
Assessment Carcinogenicity

IMIDACLOPRID and TAU-FLUVALINATE were not considered carcinogenic in oncogenicity studies in rats and mice.

TEBUCONAZOLE is classified by EPA as a Group C carcinogen (possible human carcinogen) based on liver tumors in mice and no evidence of carcinogenicity in rats. As the liver tumors were seen only at a dose exceeding a Maximum Tolerated Dose (MTD), no significant carcinogenic risk is posed for human exposure.

ACGIH
1-Propanol 71-23-8 Group A3

NTP
None.

IARC
None.

OSHA
None.

Reproductive & Developmental Toxicity

IMIDACLOPRID, TAU-FLUVALINATE and TEBUCONAZOLE are not considered primary reproductive toxicants in rats. Reproductive effects (e.g., decreased pup body weights) were observed at the highest concentration but were considered secondary to maternal toxicity.

DEVELOPMENTAL TOXICITY: IMIDACLOPRID, TAU-FLUVALINATE and TEBUCONAZOLE are not considered primary developmental toxicants in laboratory animals. Developmental effects were observed only at doses that caused maternal toxicity.

Neurotoxicity

IMIDACLOPRID and TEBUCONAZOLE caused only transient neurobehavioral effects (e.g., decreased motor activity) in acute, subchronic and/or developmental neurotoxicity studies in rats.

TAU-FLUVALINATE caused typical clinical signs associated with pyrethroid neurotoxicity (e.g., transient hyperactivity) at high doses in rats.

Mutagenicity

IMIDACLOPRID, TAU-FLUVALINATE and TEBUCONAZOLE are not considered genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions

Highly toxic to fish. Highly toxic to aquatic invertebrates. Do not apply directly to water. Do not apply when weather conditions favor runoff or drift. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.
Toxic to bees. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance
It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. Never place unused product down any indoor or outdoor drain.

Container Disposal
Do not re-use empty containers. Place empty container in trash.

RCRA Classification:
The RCRA Classifications may be on the individual component(s) and not necessarily on the product as a whole.

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<table>
<thead>
<tr>
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</table>

SECTION 14. TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION:
Not regulated for shipment by any mode of transportation

FREIGHT CLASSIFICATION:
Insecticides or Fungicides, N.O.I., other than poison

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 72155-71

US Federal Regulations
TSCA list
1-Propanol 71-23-8
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
None.
SARA Title III - Section 302 - Notification and Information
None.
SARA Title III - Section 313 - Toxic Chemical Release Reporting
None.

US States Regulatory Reporting
CA Prop65
This product does not contain any substances known to the State of California to cause cancer.
This product does not contain any substances known to the State of California to cause reproductive harm.

**US State Right-To-Know Ingredients**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>State(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Propanol</td>
<td>71-23-8</td>
<td>CA, CT, IL, MN, RI</td>
</tr>
</tbody>
</table>

**Canadian Regulations**

- **Canadian Domestic Substance List**
  - 1-Propanol 71-23-8

**Environmental**

- **CERCLA**
  - 1-Propanol 71-23-8 100 lbs

- **Clean Water Section 307 Priority Pollutants**
  - None.

- **Safe Drinking Water Act Maximum Contaminant Levels**
  - None.

**International Regulations**

- **European Inventory of Existing Commercial Substances (EINECS)**
  - 1-Propanol 71-23-8

### SECTION 16. OTHER INFORMATION

**NFPA 704 (National Fire Protection Association):**

- Health - 1
- Flammability - 1
- Reactivity - 0
- Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: New Material Safety Data Sheet.

Revision Date: 06/14/2006

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