

# MATERIAL SAFETY DATA SHEET

MIDASH FORTE

MSDS DATE: 1/04/10

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** MIDASH FORTE

**SYNONYMS:** Sharda 4SC Imidacloprid Insecticide  
**EPA REGISTRATION NO.:** 83529-6

**MANUFACTURER:** Sharda USA LLC  
**ADDRESS:** 7460 Lancaster Pike, Suite 9  
 Hockessin, DE 19707

**PHONE:** (302) 234-2780  
**FAX:** (302) 234-7570  
**EMAIL:** shardain@vsnl.com  
**WEBSITE:** www.shardaintl.com

**EMERGENCY PHONE:** 1(800) 222-1222  
**CHEMTREC PHONE:** 1(800) 424-9300

**CHEMICAL NAME:** Imidacloprid  
**CHEMICAL FAMILY:** Chloronicotinyl (neonicotinoid)

**CHEMICAL FORMULA:** C<sub>9</sub>H<sub>10</sub>ClN<sub>5</sub>O<sub>2</sub>  
**PRODUCT USE:** Pest management and suppression of insect vectored diseases and maintenance of plant health.  
**PREPARED BY:** Sharda USA LLC

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

**INGREDIENT:** Imidacloprid

| <u>CAS NO.</u>     | <u>% WT</u> | <u>% VOL</u> | <u>SARA 313 REPORTABLE</u> |
|--------------------|-------------|--------------|----------------------------|
| 138261-41-3        | 40.70       | 40.70        | no                         |
|                    | <u>ppm</u>  | <u>mg/m3</u> |                            |
| OSHA PEL-TWA:      | N/A         | N/A          |                            |
| OSHA PEL STEL :    | N/A         | N/A          |                            |
| OSHA PEL CEILING:  | N/A         | N/A          |                            |
| ACGIH TLV-TWA:     | N/A         | N/A          |                            |
| ACGIH TLV STEL:    | N/A         | N/A          |                            |
| ACGIH TLV CEILING: | N/A         | N/A          |                            |

## SECTION 3: HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Caution. Hazardous to humans and domestic animals. Harmful if swallowed or absorbed through skin. Keep out of reach of children and animals.

**ROUTES OF ENTRY:** Inhalation, eye, and dermal contact.

**POTENTIAL HEALTH EFFECTS**

**EYES:** Mild Irritant

**SKIN:** May be harmful if absorbed through skin.

**INGESTION:** Harmful if swallowed.

**INHALATION:** Avoid inhalation of vapor or mist.

**ACUTE HEALTH HAZARDS:** Harmful if swallowed or absorbed through skin.

**CHRONIC OR DELAYED HEALTH HAZARDS:** This product or its components may have target organ effects.

**CARCINOGENICITY –** None known.

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## SECTION 4: FIRST AID MEASURES

| FIRST AID  |  |
|--|--|
| If swallowed:  | <ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul> |
| If on skin:  | <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>  |
| If inhaled   | <ul style="list-style-type: none"> <li>• 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.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>   |
| If in eyes:  | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatments advice.</li> </ul>   |
| HOT LINE NUMBER  |  |
| <p>Notes to Physician: There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.</p> <p>Have a product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-hour medical emergency assistance (human or animal) call 1-800-222-1222. For chemical emergency assistance (spill, leak, fire, or accident) call ChemTrec at 1-800-424-9300.</p> |  |

## SECTION 5: FIRE-FIGHTING MEASURES

This product is non-flammable and non-explosive.

FLAMMABLE LIMITS IN AIR, UPPER: Not applicable  
 (% BY VOLUME) LOWER: Not applicable

FLASH POINT: >210 deg F

AUTOIGNITION TEMPERATURE: Not applicable

FLAMMABILITY: Not applicable

EXTINGUISHING MEDIA: Water, foam, dry chemical, carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: Keep out of smoke. Fight fire from upwind position. Cool closed containers/tanks exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike area to prevent runoff and contamination of water sources. Wear self-contained breathing apparatus and full fire fighting turn-out gear (Bunker gear).

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may produce gases such as hydrogen chloride, hydrogen cyanide, and oxides of carbon and nitrogen.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

### SECTION 6 NOTES:

**Small Spill:** Absorb small spills with sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal. Scrub area with hard water detergent. Pick up wash liquid with additional absorbent and place into appropriate container for disposal.

**Large Spill:** Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify and scrape up for disposal. Pick up wash liquid with additional absorbent

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and place in a disposable container. After removal, flush contaminated area thoroughly with water. This material should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

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### **SECTION 7: HANDLING AND STORAGE**

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**HANDLING AND STORAGE:** Read label carefully before use. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove personal protective equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Store the material in a well ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco product in the storage area. Prevent eating, drinking tobacco use and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and after handling.

**OTHER PRECAUTIONS:** Do not contaminate water, food, or feed by storage or disposal.

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### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**ENGINEERING CONTROLS:** Refer to product label.

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation, packaging and use of this product. For commercial applications and/or on-farm applications consult the product label.

**EYE PROTECTION:** Protective goggles or full face shield.

**INGESTION:** Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

**SKIN PROTECTION:** Long-sleeved shirt, long pants, shoes plus socks. Chemical resistant footwear and overalls. Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC), or Viton.

**INHALATION:** A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P, or HE filter.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**WORK HYGIENIC PRACTICES:** Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

**EXPOSURE GUIDELINES:** Refer to Section 2.

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### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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**APPEARANCE:** Beige, opaque

**ODOR:** Mild odor

**PHYSICAL STATE:** Liquid

**pH AS SUPPLIED:** 6.23

**BOILING POINT:** Not determined.

**MELTING POINT:** Not determined.

**VAPOR PRESSURE (mmHg):** Not determined.

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SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 1.157g/ml @ 24 C

SOLUBILITY IN WATER: Dispersible

### SECTION 10: STABILITY AND REACTIVITY

STABLE  
X

UNSTABLE

STABILITY: Stable at normal temperature and pressure.

CONDITIONS TO AVOID (STABILITY): None known.

INCOMPATIBILITY (MATERIAL TO AVOID): None known.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Thermal decomposition can lead to the release of hydrogen chloride, hydrogen cyanide, nitrogen oxides, and carbon monoxide.

HAZARDOUS POLYMERIZATION: Will not occur.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### TOXICOLOGICAL INFORMATION:

Oral LD<sub>50</sub> (male rat) >4,870 mg/Kg

Oral LD<sub>50</sub> (female rat) 4,143 mg/Kg

Dermal LD<sub>50</sub> (rabbit) >2,000 mg/Kg

Inhalation LC<sub>50</sub> (rat) >0.53 mg/L (4-hr)

Eye Contact: Minimally irritating (Rabbit)

Skin Contact: No skin irritation (Rabbit)

Skin Sensitization: Not a Sensitizer (Guinea Pig)

Reproductive/Developmental Effects: Imidacloprid was not a reproductive toxicant in a multi generation study in rats.

Mutagenicity : no evidence in vivo assays.

Development toxicity : In a two-generation reproduction study in rats, imidacloprid was not a primary reproductive toxicant. Offspring exhibited reduced body weights at the high dose and in conjunction with maternal toxicity.

Chronic/subchronic toxicity studies Imidacloprid caused thyroid and/or liver effects in chronic dietary studies in rats and dogs.

Carcinogenicity No evidence of carcinogenicity in the rat mouse studies

Other toxicity information None

Toxicity of other components Not applicable

Target organs

Active ingredient (imidacloprid) Thyroid and liver

Inert ingredient Not applicable

### SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: This product is extremely toxic to aquatic and estuarine invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

This product is highly toxic to bees 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 are visiting the treatment area.

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|                       |  |
|-----------------------|--|
| Summary of effects:   | This material is toxic to invertebrates and bees.  |
| Eco Acute Toxicity:   | Bees LC50/EC50 (48 hour) 0.078 ug/bee (contact)<br>Invertebrates (Daphnia) LC50/EC 50 (48 hour) 85mg/L<br>Invertebrates (Mysid) LC50/EC 50 (96 hour) 0.038 ppm<br>Fish (trout ) LC50/EC50(96 hour) 211 mg/L<br>Birds (Bobwhite Quail LC50/EC50 152 mg/kg<br>Birds (Japanese Quail) LC50/EC50) 31 mg/kg |
| Eco Chronic Toxicity: | Not available  |
| Environmental fate:   | Hydrolysis half-life of imidacloprid is greater than 30 days at pH 7 and 25 deg C. The aqueous photolysis half-life is less than 3 hours. The soil surface photolysis of imidacloprid has a half-life of 39 days, and in soil, the half-life ranged from 26-229 days.                                  |

## SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** Product disposal – Pesticide wastes may be acutely hazardous. Improper disposal is a violation of federal law. Pesticide, mixtures, or equipment rinse water that cannot be chemically reprocessed must be disposed of according to applicable federal, state or local regulations. Contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional office for guidance.

**Container disposal –** Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

**RCRA HAZARD CLASS:** Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

## SECTION 14: TRANSPORT INFORMATION

**U.S. DEPARTMENT OF TRANSPORTATION – Non Regulated**

**WATER TRANSPORTATION – Insecticides or Fungicides, N.O.I.; other than poison**

**AIR TRANSPORTATION – Insecticides or Fungicides, N.O.I.; other than poison**

## SECTION 15: REGULATORY INFORMATION

### U.S. FEDERAL REGULATIONS

**TSCA (TOXIC SUBSTANCE CONTROL ACT):** The ingredients of this product are listed on the TSCA inventory or are exempt.

**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):**  
**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

302: None

311/312 HAZARD CATEGORIES: None  
313 REPORTABLE INGREDIENTS: None

CA PROPOSITION 65: None

## SECTION 16: OTHER INFORMATION

### OTHER INFORMATION:

|                       |             |   |          |
|-----------------------|-------------|---|----------|
| <b>HAZARD RATINGS</b> | <b>NFPA</b> |   |          |
| HEALTH:               | 1           | 0 | MINIMAL  |
| FLAMMABILITY:         | 1           | 1 | SLIGHT   |
| REACTIVITY:           | 1           | 2 | MODERATE |
|                       |             | 3 | HIGH     |
|                       |             | 4 | SEVERE   |

**PREPARATION INFORMATION:** MSDS DATE 1-4-10  
REVISION DATE

**DISCLAIMER:** This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. The information contained herein is given in good faith and is believed to be correct, but no warrant, express or implied is made. Consult Sharda USA LLC for further information.