Material Safety Data Sheet

1. IDENTIFICATION OF SUBSTANCE:

Trade name: Imidacloprid 200g/l SL Product Use: Agricultural Insecticide

2. COMPOSITION/DATA ON COMPONENTS:

Chemical Name: 1 -(6-chloro-3-pyridylmethyl)-N-nitroimidazolidm-2-ylideneamine

Content: 200g/l

CAS Registry Number: 183261 -41 -3

Molecular Weight:255.7 Molecular Formula:

C9H10C1N5O2

3. HAZARDS IDENTIFICATION:

Hazard Ingredient: Imidacloprid

Hazard Description: Light yellow to brown well-proportioned liquid without eyeable suspension substance;

Harmful if inhaled or ingested; Harmful if absorbed through skin; Causes eye irritation.

Immediate Effects:

Eye: Avoid contact with the eyes. Causes eye irritation.

Skin: Avoid contact with skin, eyes and clothing. Harmful if absorbed through skm.

Ingestion: Harmful if swallowed.

Inhalation: Avoid breathing dust or spray mist. Harmful if inhaled

4. FIRST AID MEASURES:

If poisoning occurs, immediately contact a doctor or Poisons Information Centre, and follow the advice given. Show this Material Safety Data Sheet to a doctor.

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 poison control center or doctor for treatment advice.

Skin Wash off immediately with plenty of water for at least 15 minutes. Remove contammated clothing and shoes. Call a poison control center or doctor for treatment advice.

Ingestion Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Have person sip a glass of water if able to swallow. Call a poison control center or doctor immediately for treatment advice.

Notes to physician

Treatment Treat symptomatically. There is no antidote.

5. FIRE FIGHTING MEASURES:

Extinguishing media: Carbon dioxide, foam, dry chemical.

Hazards from combustion products: In the event of a fire the formation of hydrogen chloride, hydrogen

cyanide, carbon monoxide and nitrogen oxides must be anticipated.

Fire Fighting Instructions In the event of fire, wear self-contained breathing apparatus. Dike area to prevent runoff and contamination of water sources. Keep out of smoke. Fight fire from upwmd position. Equipment or materials involved in pesticide fires may become contaminated. Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES:

Person-related safety precautions: cordon off area of spill; wear self-contained breathing apparatus, protective clothing and heavy rubber gloves

Measures for cleaning/collecting: absorb solutions with Finely-powdered liquid-binding material (diatomite, universal binders), decontaminate surfaces and equipment by scrubbing with alcohol; dispose of contaminated material according to Section 13

7. HANDLING AND STORAGE:

Handling: Keep out of reach of children.

Storing Procedures Do not contaminate water, food, or feed by storage or handling. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Min/Max Storage Temperatures: No minimum storage temperature. 30 days average temperature not to exceed 100°F

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION:

Engineering Controls Use with local exhaust ventilation. Where engineering controls are indicated by use conditions of a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: When handlers used closed systems, enclosed cabs, or aircraft m 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.

Eye/Face Protection Tightly fitting safety goggles.

Hand Protection: Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

Body Protection Long-sleeved shirt and long pants. Shoes plus socks.

Respiratory Protection When respiratory protection is necessary under the conditions of use, wear a respirator approved for pesticides by the National Institute for Occupational Safety and Health (NIOSH). No personal respiratory" protective equipment normally required.

General Protection In case of contact, immediately flush eyes or skm with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Educate and train employees in safe use of the product. Follow all label instructions. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Form: Liquid

Color: Light yellow to brown.

Odor: Faint chemicals odor Danger of

explosion: not applicable

Solubility in / Miscibility with water: Miscibility with water easily.

pH: 6.0-8.0.

Suspension: Not applicable Wet time: Max. Not applicable Grain Size: Not applicable Water content: Max. 0.5%

10. STABILITY AND REACTIVITY:

Chemical stability: Stable under recommended storage conditions. Hazardous polymerisation: Hazardous polymerization will not occur.

Conditions to avoid: None known.

Incompatible materials: Avoid oxidising agents

Hazardous decomposition products: In the event of fire, the formation of hydrogen chloride, hydrogen

cyanide, carbon monoxide and nitrogen oxides must be anticipated.

Hazardous Reactions: none

11. TOXICOLOGICAL INFORMATION:

Acute:

Oral toxicity: LD50: 2870mg/kg for male rats; 2710mg/kg for female rats

Dermal toxicity: LD50: >5000mg/kg for rats.

Skin irritation: Not irritating - rabbit Eye irritation: Not irritating - rabbit Sensitisation: Not a skin sensitiser

NOEL: (2y) for male rats 100, female rats 300, mice 330 mg/kg diet,

(52 w) for dogs 500 mg/kg diet (for lmidacloprid).

ADI: 0.057 mg/kg b.w.

Other: Not mutagenic or teratogenic (for lmidacloprid). Toxicity class: WHO (a.i.) II; EPA (formulation) II

12. ECOLOGICAL INFORMATION:

Highly toxic to aquatic 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 contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

This product is highly toxic to bees exposed to direct treatment of 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.

Do not allow material to contaminate ground water system.

Fish toxicity: LC50: 211 mg/L (96 h) rainbow trout

LC50: 237 mg/L golden orfe

Daphnia toxicity: LC50 (48 h) 85 mg/1.

Toxicity to algae: ErC50 for Pseudokirchneriella subcapitata >100 mg/1.

Bird toxicity: Acute oral LD50: Japanese quail 31, bobwhite quail 152 mg/kg. Dietary LC50(5d):

bobwhite quail 2225, mallard ducks >5000 mg/kg.

Bee toxicity: Harmful to honeybees by direct contact, but no problems expected when not sprayed

into flowering crop or when used as a seed treatment.

Worms: LC50 for Eisema foetida 10.7 mg/kg dry soil

13. DISPOSAL CONSIDERATION:

General Disposal Guidance

Follow container label instructions for disposal of wastes generated during use in compliance with the product label. In other situations, bury in an approved landfill or burn in an incinerator approved for pesticide destruction.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal

Empty remaining contents. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If burned, stay out of smoke. Then dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning.

14. TRANSPORT INFORMATION:

U.N. Number 3082 DG Class 9 Packing Group III

15. REGULATIONS:

Code letter and hazard designation of product: Not available Hazard-determining components of labeling: Not available Risk phrases: may be irritating to eyes, skin and respiratory system

Safety phrases: in case of accident, flush eyes or skin with copious amounts of water; remove contaminated clothing and shoes; call a physician.

16. OTHER INFORMATION:

Disclaimer: The information provided by Zhejiang Hisun Chemical Co., Ltd contained herein is given in good faith and to the best of our knowledge.

However, no warranty is expressed or implied. Prepared by: Division of Products Registration

Authorized Signatures