MATERIAL SAFETY DATA SHEET

In the event or a medical or chemical emergency contact ChemTel, Inc. North American 1-800-255-3924 or worldwide Intl. + 01-813-248-0585

Voluntary Purchasing Groups, Inc.
230 FM 87
Bonham, Texas 75418

Ferti-lome® 2-N-1 Systemic

Effective Date: December 1, 2011

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Ferti-lome® 2-N-1 Systemic
EPA No.: 69361-19-7401

COMPANY IDENTIFICATION:
Voluntary Purchasing Groups, Inc.
230 FM 87
Bonham, TX. 75418

2. COMPOSITION / INFORMATION ON INGREDIENTS:

Hazardous Component Name	CAS No.	Concentration % by Weight	
		Minimum	Maximum
Imidacloprid Technical	138261-41-3	0.1380	0.1680
Tebuconazole	107534-96-3	0.7430	0.9080

3. HAZARDOUS IDENTIFICATION:

Note: Please refer to Section 11 for detailed toxicological information

Emergency Overview: Caution! Hazards to humans and domestic animals. Causes moderate eye irritation. This product is highly toxic to aquatic invertebrates.

Physical State: Low viscosity liquid

Route of Exposure: Ingestion, eye and skin contact.

Immediate Effects General: Do not allow children and pets to enter the treated area until it has dried.

Eye: Avoid contact with eyes or clothing. Eye irritation is slight or neglible.

Skin: Avoid contact with skin.

4. FIRST AID MEASURES:

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.

5. FIRE FIGHTING MEASURES:

Flash Point > 93.3ºC/>199.9 ºF **Method:** Setaflash Closed Cup

Suitable Extinguishing Media: Dry chemical, Foam

Fire Fighting Instructions: Keep out of smoke. Contain runoff.

6. ACCIDENTAL RELEASE MEASURES:

General and Disposal: Use proper protective equipment to minimize personal exposure (see Section 8). Absorb with vermiculite or other inert absorbent. Collect and contain contaminated absorbent and dike material for disposal.

Land Spill or Leaks: Do not allow material to enter streams, sewers, or other waterways or contact vegetation.

7. HANDLING AND STORAGE:

Handling Procedures: Read label carefully before use. Use the recommended equipment when handling this product (see Section 8).

Storing Procedures: Store in original container in a secured, dry storage area. Store in cool place. Store in an area that is out of reach of children and animals, away from the home or garden. Keep from freezing.

Work/Hygienic Procedures: Avoid contact with skin, eyes and clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION:

Eye/Face Protection: Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles.

Body Protection: Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride. Wear long-sleeved shirt and long pants and shoes plus socks.

General Protection: Follow all label instructions.

Exposure Limits: None Established

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State: Low viscosity liquid

pH: 7.0 – 8.0

Density : 1.36 – 1.38 g/cm3 at 20^0C

Minimum Explosion Conc. (MEC): No thermal or impact explosive material

Viscosity: 400 – 1,000 mPa.s 25^0C

10. STABILITY AND REACTIVITY:

Chemical Stability: Do not freeze. Keep in a dry place.

Hazardous Polymerization (Conditions to Avoid): Will not occur.

11. TOXICOLOGICAL INFORMATION:

Acute Oral Toxicity: Male and Female Rat: LD50: > 5,000 mg/kg

Acute Dermal Toxicity: Male and Female Rat: LD50: > 5,000 mg/kg

Acute Inhalation Toxicity:
Male and Female Rat: LC50: 4-hr exposure to liquid aerosol: >2.76 mg/l. Maximum attainable concentration. No deaths
Male and Female Rat: 1-hr exposure to liquid aerosol (extrapolated from 4-hr LC50): > 11 mg/l

Skin: Rabbit: Mild irritant with all irritation clearing within 72 hours post-treatment.

Eye Irritation: Rabbit: Moderate irritation to the iris and/or conjunctiva with all irritation clearing within 48 hours post-treatment.

Sensitization: Guinea pig: Not a dermal sensitizer.

Sub-Chronic Toxicity:
In a 3 week dermal toxicity study, rabbits treated with imidacloprid and tebuconazole showed no local or systemic effects at levels up to and including 1000 mg/kg, the limit dose.
In a 4 week inhalation study, rats exposed to high concentrations of imidacloprid exhibited decreased body weight gains and changes in clinical chemistries and organ weights.
In a 3 week inhalation study, rats exposed to tebuconazole exhibited liver enzyme effects at the highest concentration tested (155.8 mg/m^3).

Chronic Toxicity: In chronic dietary studies in rats and dogs treated with tebuconazole, effects on the liver,spleen,adrenals and/or eyes occurred at high doses. In chronic dietary studies in rats and dogs exposed to imidacloprid, slight effects on the thyroids and/or liver were observed at high doses.

Assessment Carcinogenicity: Tebuconazole gave no evidence of a carcinogenic potential in an oncogenicity study in rats, however, in a study using mice there was an increased incidence of hepatocellular neoplasms at a dose level approximately three-fold greater than the maximum tolerated dose (MTD). In oncogenicity studies in rats and mice, imidacloprid was not carcinogenic in either species.

ACGIH None **NTP** None **IARC** None **OSHA** None

Reproductive & Developmental Toxicity	In a two generation study in rats treated with tebuconazole, smaller litters and decreased pup body weights were observed in conjunction with maternal toxicity at the highest concentration tested (1000 ppm). In a two generation reproduction study in rats, imidacloprid was not a primary reproductive toxicant. Offspring exhibited re- duced body weights at the high dose and in conjunction with maternal toxicity. Tebuconazole produced teratogenic effects in conjunction with maternal toxicity in mice and rabits via oral and/or dermal exposure. When tested in the rat, developmental effects were observed in conjunction with maternal toxicity via oral exposure. Teratogenic effects were not observed in the rat following either route of exposure. In developmental toxicity studies in rats and rabbits, there was no evidence of an embryotoxic or teratogenic potential for imidacloprid. In both species, slight developmental effects were observed only at high doses and in conjunction with maternal toxicity.
Neurotoxicity	In an acute oral neurotoxicity screening study in rats, tebuconazole produced transient neurobehavioral effects without correlating morphological changes in neural tissues. In a subchronic dietary neurotoxicity screening study in rats, tebuconazole did not produce any neurobehavioral symptoms or any microscopic lesions in neural tissues or skeletal muscle. In a one-generation developmental neurotoxicity study in rats, dietary concentrations of tebuconazole administered to the dams during gestation and lactation did not cause any

	specific neurobehavioral effects in the offspring. Clinical signs of toxicity, as well as, developmental toxicity were observed in the offspring, but only in conjunction with maternal toxicity. In acute and subchronic neurotoxicity screening studies in rats, imidacloprid produced slight neurobehavioral effects in each study at the highest dose tested. There were no correlating morphological changes in the neural tissues in either study. In a one-generation developmental neurotoxicity screening study in rats, offspring exposed to imidacloprid showed decreased body weights and motor activities. These effects occurred only at the highest dose tested and in conjunction with maternal toxicity. There were no correlating morphological changes observed in the neural tissues.
Mutagenicity	Numerous in vitro and in vivo mutagenicity studies have been conducted on tebuconazole of which were negative. The imidacloprid mutagenicity studies, taken collectively, demonstrate that the active ingredient is not genotoxic or mutagenic.

12. ECOLOGICAL INFORMATION:

Environmental Precautions: Do not apply directly to water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment washwater.

13. DISPOSAL CONSIDERATIONS:

General Disposal Guidance: Do not reuse empty container. Place empty container in trash. 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 any applicable state or local guidelines. Refer to the product label for other disposal instructions. Never place unused product down any indoor or outdoor drain.

RCRA Classification: Not established

14. TRANSPORTATION INFORMATION:

TRANSPORTATION CLASSIFICATION:
Not regulated for transportation

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

15. REGULATORY INFORMATION:

US Federal Regulations

TSCA list: None
TSCA 12b export notification: 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: None

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Canadian Regulations

Canadian Domestic Substance List: None

Environmental

CERCLA: None

Clean Water Section 307 Priority Pollutants: None

Safe Drinking Water Act Maximum Contaminant Levels: None

International Regulations

EU Classification: None

European Inventory of Existing Commercial Substances (EINECS): None

16. OTHER INFORMATION:

NFPA:

Health: 0 **Flammability: 1** **Reactivity: 0** **Others: NA**

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