VOLUNTARY PURCHASING GROUPS, INC.

Safety Data Sheet
Ferti-lome Rose & Flower Food plus Systemic

SECTION 1: Identification

Product identifier

Product name	Ferti-lome Rose & Flower Food plus Systemic
Product number	12845; 12847
Brand	Ferti-lome

Other means of identification
EPA Reg. No. 53883-362-7401

Recommended use of the chemical and restrictions on use
Residential use herbicide

Supplier's details

Name	Voluntary Purchasing Groups, Inc.
Address	230 FM 87 Bonham TX 75418 USA
Telephone	855-270-4776

Emergency phone number(s)

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

SECTION 2: Hazard identification

Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Skin corrosion/irritation (C.4.4), Cat. 1A

GHS label elements, including precautionary statements

Pictogram

Signal word	**Danger**

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P363	Wash contaminated clothing before reuse.
P501	Dispose of contents/container to in accordance with Federal, State and local regulations.

SECTION 3: Composition/information on ingredients

Mixtures

Hazardous components

1. Imidacloprid

Concentration	0.2 % (weight)
Other names / synonyms	1-((6-Chloro-3-pyridinyl)methyl)-N-nitro-2-imidazolidinimine;
CAS no.	138261-41-3

2. N-METHYL-2-PYRROLIDONE

Concentration	0.5 - 9 % (weight)*
Other names / synonyms	1-METHYL-2-PYRROLIDINONE; 1-Methyl-2-pyrrolidone (NMP); 1-METHYL-5-PYRROLIDINONE; 2-Pyrrolidinone, 1-methyl-; METHYLPYRROLIDONE; METHYLPYRROLIDONE,N-,2-; N-METHYLPYRROLIDINONE; N-Methylpyrrolidone; NMP
EC no.	212-828-1
CAS no.	872-50-4
Index no.	606-021-00-7

- Serious eye damage/eye irritation (chapter 3.3), Cat. 2
- Skin corrosion/irritation (C.4.4), Cat. 2

H315	Causes skin irritation
H319	Causes serious eye irritation

3. Monoammonium Phosphate (MAP)

Concentration	1 - 25 % (weight), Proprietary
CAS no.	7722-76-1

4. Ammonium Sulfate

Concentration	1 - 8 % (weight), Proprietary

Other names / synonyms	Sulfuric acid ammonium salt (1:2)
CAS no.	7783-20-2

5. POTASSIUM CHLORIDE

Concentration	1 - 25 % (weight), Proprietary
Other names / synonyms	CHLOROPOTASSURIL; CHLOROVESCENT; ENSEAL KCl; K-CONTIN; KALCORID; kalii chloridum; KALITABS; PETER-KAL; POTASH MURIATE; Potassium chloride (KCl); POTASSIUM CHLORIDE KC; POTASSIUM MURIATE; POTASSIUMCHLORIDE; POTAVESCENT; REKAWAN; REPONE K; SALT SUBSTITUTE; SLOW-K-TABLETS; SPAN-K
CAS no.	7447-40-7

6. UREA

Concentration	1 - 15 % (weight), Proprietary
Other names / synonyms	AQUADRATE; CARBAMIDE; CARBAMIDIC ACID; CARBONYL DIAMIDE; CARBONYLDIAMINE; NCI-C02119; UREAPHIL; UREOPHIL; ureum
CAS no.	57-13-6
Index no.	800180

7. Biodac® Dust Free Granular Carrier

Concentration	30 % (weight), Proprietary

Trade secret statement (OSHA 1910.1200(i))
*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

Description of necessary first-aid measures

If inhaled	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 further treatment advice.
In case of skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
In case of eye contact	Hold eye open and rinse slowly and gently with water for 15 to 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.
If swallowed	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 by mouth to an unconscious person.

Indication of immediate medical attention and special treatment needed, if necessary
No specific antidote is available. Treat symptomatically.

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Specific hazards arising from the chemical
None known

Special protective actions for fire-fighters
Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear self-contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear).

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
See Section 8 for personal protection equipment.

Environmental precautions
Keep spilled material and any rinsate from contaminating soil or from entering sewage and drainage systems and bodies of water.

Methods and materials for containment and cleaning up
Methods for Containment:
Isolate the spill area. Keep unnecessary and unprotected personnel from entering. Absorb small spills with sand, vermiculite or other inert absorbent. Dike large spills using absorbent or impervious material such as clay or sand. Avoid combustible materials such as sawdust or cloth rags. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify and scrape up for disposal.

Methods for Clean-up:
Place contaminated material in appropriate container for disposal. After removal, flush contaminated area thoroughly with soap and water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not put spilled material back in the original container.

SECTION 7: Handling and storage

Precautions for safe handling
RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this product. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes.

Conditions for safe storage, including any incompatibilities
See pesticide label for full information on product storage. Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls
Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Chemical goggles or safety glasses and full-face shield.

Skin protection
Long-sleeved shirt, long pants and shoes plus socks.

Respiratory protection
In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for pesticides.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Mixed Granules
Odor	Pungent
Odor threshold	
pH	7.0 - 8.5 (1% dispersion)
Melting point/freezing point	
Initial boiling point and boiling range	
Flash point	
Evaporation rate	
Flammability (solid, gas)	
Upper/lower flammability limits	
Vapor pressure	
Vapor density	
Relative density	
Solubility(ies)	
Partition coefficient: n-octanol/water	
Auto-ignition temperature	
Decomposition temperature	
Viscosity	
Explosive properties	
Oxidizing properties	

SECTION 10: Stability and reactivity

Chemical stability
Stable under normal storage and handling conditions.

Possibility of hazardous reactions
No potential for hazardous reactions known

Conditions to avoid
Avoid extreme temperatures

SECTION 11: Toxicological information

Information on toxicological effects

Germ cell mutagenicity
The imidacloprid mutagenicity studies, taken collectively, demonstrate that imidacloprid is not genotoxic or mutagenic. Neither in vitro nor in vivo tests on N-methyl-2-pyrrolidinone demonstrated mutagenic effects.

Carcinogenicity
Imidacloprid did not cause cancer in laboratory animal studies. The U.S. EPA has given imidacloprid a Group E (evidence of non-carcinogenicity in humans). No increase in tumors was seen in rats via dietary or inhalation exposure to N-methyl-2-pyrrolidinone for two years; however, an increase in tumors was seen in rats receiving high dietary doses over a similar period. Liver tumors are not uncommon when non-genotoxic chemicals such as N-methyl-2-pyrrolidinone are tested in the mouse biosassy.

Reproductive toxicity
In a two-generation reproduction study in rats, imidacloprid produced reduced mean body weight gains. No other reproductive effects were observed. N-methyl-2-pyrrolidinone may adversely affect reproduction in rats after ingestion, although fertility is unaltered.

STOT-repeated exposure
Repeated overexposure to imidacloprid, may affect heart, thyroid, blood chemistry, and liver. Repeated overexposure to N-methyl-2-pyrrolidinone (NMP) may cause effects to eyes, skin, respiratory system, central nervous system, liver and kidneys.

SECTION 12: Ecological information

Toxicity
ECOTOXICITY DATA: The data presented below is on technical imidacloprid.
Fish Toxicity: Bluegill (Lepomis macrochirus): 96 hr LC50 = 105 mg/L
Rainbow trout: 96 hr LC50 = 211 mg/L

Aquatic Invertebrate Toxicity:
Daphnia magna: 48 hr EC50 = 85 mg/L

Aquatic Plant Toxicity: No data available

Avian Toxicity:
Bobwhite Quail: 8-day dietary LC50 = 1535 ppm
Bobwhite Quail: Oral LD50 = 152 mg/kg
Mallard Duck: 8-day dietary LC50 >4,797 ppm

Honeybee Toxicity:
Contact LD50 = 0.078 µg/bee

Persistence and degradability
Hydrolysis half-life of imidacloprid is greater than 30 days at pH 7 and 25°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 to 229 days.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
No data available.

Other adverse effects
Environmental Hazards Statement from FIFRA Regulated Pesticide Label:
This product is highly toxic to aquatic invertebrates. 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 contaminate water when disposing of equipment washwaters or rinsate. Runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

This product contains a chemical with properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

To prevent contamination of the environment, do not apply near water, storm drains, gutters or ditches. Do not apply when heavy rain or downpour is predicted for that day. Apply this product only to your lawn or garden, and sweep any product that lands on the driveway, sidewalk, or street, back onto the treated area of your lawn or garden.

SECTION 13: Disposal considerations

Disposal of the product
Refer to the pesticide label for full information on disposal. Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used 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 in proper disposal methods.

Disposal of contaminated packaging
Refer to the pesticide label for full information on disposal. When possible, triple rinse the container and offer for recycling if available.

Other disposal recommendations
RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Massachusetts Right To Know Components
Chemical name: N-Methyl-2-pyrrolidone
CAS number: 872-50-4

New Jersey Right To Know Components
Common name: 1-METHYL-2-PYRROLIDONE
CAS number: 872-50-4

Pennsylvania Right To Know Components
Chemical name: 2-Pyrrolidinone, 1-methyl- 2,beta-butoxyethoxyethyl Chloride
CAS number: 872-50-4

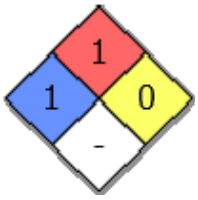
California Prop. 65 components
Chemical name: N-METHYL-2-PYRROLIDONE
CAS number: 872-50-4
06/15/2001 - developmental
06/15/2001 - Developmental toxicity

Section 313
This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:
N-Methyl-2-pyrrolidinone CAS Number 872-50-4

Labeling Requirements Under FIFRA
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 the hazard information as required on the pesticide label:
CAUTION
Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash before reuse.

Pennsylvania Right To Know Components
Chemical name: Sulfuric acid diammonium salt
CAS number: 7783-20-2

NFPA Rating



SECTION 16: Other information

Further information/disclaimer
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