VOLUNTARY PURCHASING GROUPS, INC.

Safety Data Sheet
Ferti-lome F-Stop

SECTION 1: Identification

GHS Product identifier

Product name	Ferti-lome F-Stop
Product number	10768; 12770
Brand	Ferti-lome®

Other means of identification
EPA Reg. No. 62719-461-7401

Recommended use of the chemical and restrictions on use
Fungicide.

Supplier's details

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

Emergency phone number

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, 2012)

- Acute toxicity, oral, Cat. 4
- Eye damage/irritation, Cat. 2A
- Toxic to reproduction, Cat. 2

GHS label elements, including precautionary statements

Pictograms

Signal word **Warning**

Hazard statement(s)

H302	Harmful if swallowed
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child [effect, route]

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER /doctor if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P330	Rinse mouth.
P337+P313	If eye irritation persists: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to in accordance with Federal, State and local regulations.
P102	Keep out of reach of children.
P103	Read label before use.

SECTION 3: Composition/information on ingredients

Mixtures

Hazardous components

Component	Concentration
Myclobutanil (CAS no.: 88671-89-0; EC no.: —; Index no.: 613-134-00-5)	**95 %**
CLASSIFICATIONS: Toxic to reproduction, Cat. 2; Acute toxicity, oral, Cat. 4; Eye damage/irritation, Cat. 2A; Hazardous to the aquatic environment, long-term (chronic), Cat. 2. HAZARDS: H302 - Harmful if swallowed; H319 - Causes serious eye irritation; H361d - ; H411 - Toxic to aquatic life with long lasting effects.	

SECTION 4: First-aid measures

Description of necessary first-aid measures

If inhaled	Move person to fresh air; if effects occur, consult a physician.
In case of skin contact	Wash skin with plenty of water.
In case of eye contact	Immediately flush eyes with water; remove contact lenses, if present after the first 5 minutes. then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferable from an ophthalmologist.
If swallowed	Call a poison control center or doctor immediately for treatment advise. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed
No information available.

Indication of immediate medical attention and special treatment needed, if necessary
No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Use the following extinguishing media when fighting fires involving this material: carbon dioxide, dry chemical and water spray.

Specific hazards arising from the chemical
Pesticide particulates can become airborne. Combustion generates toxic fumes of the following hydrogen chloride.

Special protective actions for fire-fighters
Wear self-contained breathing apparatus (pressure demand NIOSH approved or equivalent) and full protective gear.

Further information
Contain run-off. Remain upwind. Avoid breathing smoke. Use water spray to cool containers exposed to fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear appropriate protective equipment when handling a spill of this material. If exposed to material during clean-up operations see Section 4 for actions to follow. Remove all contaminated clothing promptly. Wash all exposed skin areas with soap and water immediately after exposure. Thoroughly launder clothing before reuse. Do not take clothing home to
be laundered.

Methods and materials for containment and cleaning up
ACTION TO TAKE FOR SPILLS/LEAKS: sweep up small spills and place in a suitable container or disposal. Report large
spills to CHEMTREC 800-424-9300. Keep dust to a minimum. Keep out of sewers and open bodies of water.

SECTION 7: Handling and storage

Precautions for safe handling
Keep out of reach of children. Avoid eye contact. Wash
thoroughly with soap and water after handling. Do not swallow.

Conditions for safe storage, including any incompatibilities
Do not store this material near food, feed, or drinking
water. Store in a well-ventilated area. Store in a dry area with the container tightly closed when not in use. Store out of
direct sunlight in a cool place.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls
Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

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

Eye/face protection
Use chemical goggles.

Skin protection
Use cloves chemically resistant to this material when prolonged or frequently repeated contact could occur.

Body protection
Refer to the product label for personal protective clothing and equipment.

Respiratory protection
For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use a NIOSH approved air-purifying respirator.

SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.)	White to yellow crystalline solid
Odor	None
Odor threshold	None known
pH	8.5
Melting point/freezing point	145-154°F (63-68°C)
Initial boiling point and boiling range	396-406°F (202-208°C) @ 1 mm Hg
Flash point	No information available.
Evaporation rate	(Bac=1): Not applicable
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	1 mm Hg@392°F (200°C)
Vapor density	No information available.
Relative density	No information available.
Solubility(ies)	142 ppm @ 77°F (25°C)
Partition coefficient: n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity	No information available.

Additional properties

Physical state	Solid
Color	White to yellow

SECTION 10: Stability and reactivity

Reactivity
No data available.

Chemical stability
This material is stable under normal storage conditions.

Possibility of hazardous reactions
HAZARDOUS POLYMERIZATION: Not known to occur.

Conditions to avoid
Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials
Avoid contact with strong oxidizing agents, particularly concentrated nitric acid.

Hazardous decomposition products
Thermal decomposition may yield the following: Hydrogen chloride.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
The ATE (oral) of the mixture is: 526.32 mg/kg bw
Acute oral toxicity
Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Excessive exposure may cause neurologic signs and symptoms. Observations in animals include: Convulsions. Muscle spasms or twitches.
As product:
LD50, Rat, female, 3,749 mg/kg
Acute dermal toxicity
Prolonged skin contact is unlikely to result in absorption of harmful amounts.
LD50, Rat, > 2,000 mg/kg No deaths occurred at this concentration.
Acute inhalation toxicity
Prolonged excessive exposure to mist may cause adverse effects. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause central nervous system effects. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed. Signs and symptoms of excessive exposure may include: Sweating. Nausea and/or vomiting.
As product: The LC50 has not been determined. Based on information for component(s):
LC50, Rat, Aerosol, > 5 mg/l Estimated.

Skin corrosion/irritation
Brief contact may cause slight skin irritation with local redness.

Serious eye damage/irritation
May cause moderate eye irritation.
May cause slight corneal injury.
Vapor may cause eye irritation experienced as mild discomfort and redness.
In humans, eye irritation resulted from brief (minutes) exposure to cyclohexanone vapor concentration of 50 ppm and above.

Respiratory or skin sensitization
Did not cause allergic skin reactions when tested in guinea pigs.
For respiratory sensitization:
No relevant data found.

Germ cell mutagenicity
For the active ingredient(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.
For the minor component(s): In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were inconclusive.

Carcinogenicity
Contains naphthalene which has caused cancer in some laboratory animals. In humans, there is limited evidence of cancer in workers involved in naphthalene production. Limited oral studies in rats were negative.
Active ingredient did not cause cancer in laboratory animals.

Reproductive toxicity

For the active ingredient(s): In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
For the minor component(s): Cyclohexanone caused reduced growth and survival of offspring in an animal reproduction study. Dose levels producing this effect also caused central nervous system effects in parental animals.

Summary of evaluation of the CMR properties
For the active ingredient(s): Has been toxic to the fetus in lab animals at doses nontoxic to the mother. Did not cause birth defects in laboratory animals.
For the minor component(s): Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Has caused birth defects in lab animals only at doses producing severe toxicity in the mother.

Specific target organ toxicity (STOT) - single exposure
Available data are inadequate to determine single exposure specific target organ toxicity.

Specific target organ toxicity (STOT) - repeated exposure
For the active ingredient(s):
In animals, effects have been reported on the following organs:
Liver.
Testes.
Adrenal gland.
Kidney.
Thyroid.
Contains component(s) which have been reported to cause effects on the following organs in animals:
Kidney.
Liver.
Central nervous system.
Blood.
Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed.

Aspiration hazard
Based on physical properties, not likely to be an aspiration hazard.

SECTION 12: Ecological information

Toxicity
Material is highly toxic to aquatic organisms on an acute basis (LC50 or EC50 is between 0.1 and 1 mg/L in the most
sensitive species tested).
Acute LC50 in bluegill (Lepomis macrochirus) is 2.4-4.1 mg/L.
Acute LC50 in rainbow trout (Oncorhynchus mykiss) is 4.2 mg/L.
Acute LC50 in water flea (Daphnia magna) is 11 mg/L.
Maximum acceptable toxicant concentration (MATC) in fish early life-stage study is between 0.98-2.2 mg/L.
Growth inhibition EC50 in green alga (Selenastrum capricomutum) is 1.0 mg/L.
Growth inhibition EC50 in alga (Scenedesmus sp.) is 2.655 mg/L.
Acute immobilization EC50 in water flea (Daphnia magna) is 17 mg/L.
Acute LC50 insheepshead minnow (Cyprinodon variegates) is 4.7 mg/L.
Acute LC50 in saltwater mysid (Mysidopsis bahia) is 0.24 mg/L
Acute EC50. in shell deposition inhibition in Easter oyster (Crassostrea virginica) is 0.72 mg/L.
Material is practically non-toxic to birds on a dietary basis (LC50 is >5000 ppm).
Dietary LC50 in bobwhite (Colinus virginianus) is >5000 ppm.
Dietary LC50 in mallard (Anas platyrhynchos) is >5000 ppm.
Material is slightly toxic to birds on an acute basis (LD50 is between 501 and 2000 mg/kg.
Acute oral LD50 in bobwhite (Colinus virginianus) is 510 mg/kg.
Acute contact LD50 in honeybee (Apis mellifera) is >100 ug/bee.

Persistence and degradability
Potential for mobility in soil is low (Koc between 500 and 2000).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Partition coefficient(Koc): 517

SECTION 13: Disposal considerations

Disposal methods

Product disposal
If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

Waste treatment
Wastes resulting from the use of this product may be disposed of on site according to label directions or at an approved waste disposal facility. Follow all local, state and federal requirements for disposal.

SECTION 14: Transport information

DOT (US)
This material is not regulated for transportation.

IMDG
This material is not regulated for transportation.

IATA
This material is not regulated for transportation.

SECTION 15: Regulatory information

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

Massachusetts Toxic Use Reduction Act (TURA) list
Chemical name: Alpha-butyl-alpha-(4-chlorophenyl)-1h-1,2,4-triazole-1-propanenitrile
CAS number: 88671-89-0
TRI listing: X-reportable; CERCLA listing: unlisted; TURA-only listing: no; de minimis concentration threshold: 1 percent. Changes: Added to TURA and TRI RY1995

New Jersey Right To Know Components
Common name: Systhane
CAS number: 88671-89-0

California Proposition 65 Chemicals List
WARNING: This product can expose you to chemicals including Myclobutanil, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Minnesota Chemicals of High Concern (Minn. Stat. 116.9401)
Chemical name: Myclobutanil
CAS number: 88671-89-0
Hlth: development, reproduction; PBT/vPvB

California Prop. 65 components

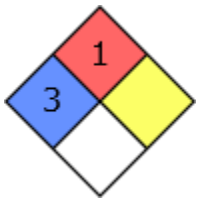
Chemical name: Myclobutanil
CAS number: 88671-89-0
04/16/1999 - Developmental toxicity
04/16/1999 - Male reproductive toxicity

SARA 313 Components
Product name: Ferti-lome F-Stop

SARA 311/312 Hazards
Product name: Ferti-lome F-Stop

Toxic Substances Control Act (TSCA) Inventory
Product name: Ferti-lome F-Stop

NFPA Rating



SECTION 16: Other information

Further information/disclaimer
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