

Safety Data Sheet

Ferti-lome F-Stop

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.

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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)

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Eye/face protection

Use chemical goggles.

Skin protection

Use clothes 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.

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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

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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 capricornutum*) 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 in sheepshead minnow (*Cyprinodon variegatus*) is 4.7 mg/L.

Acute LC50 in saltwater mysid (*Mysidopsis bahia*) is 0.24 mg/L.

Acute EC50 in shell deposition inhibition in Eastern 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.

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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

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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

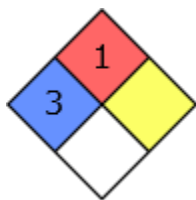
SARA 311/312 Hazards

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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