

1. IDENTIFICATION

Product name: **Silencer® 120 EC (PCP 29052)**
 Chemical name of active ingredient(s): Lambda Cyhalothrin: [1 α (S*),3 α (Z)]-(\pm)-cyano-(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate
 Manufacturer: ADAMA Agricultural Solutions Canada Ltd
 302-179 McDermot Ave.
 Winnipeg Manitoba
 R3B 0S1
 Phone: 1-204-396-1640
 For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-800-535-5053
 For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	%	OSHA PEL	ACGIH TLV	NTP/IARC/OSHA Carcinogen
Lambda-cyhalothrin (CAS# 91465-08-6)	12.7	NE	NE	NA
Aromatic solvent (CAS# 64742-94-5)	78.9	NE	NE	NA
Contains Naphthalene (CAS#: 91-20-3)	7.89	50 mg/m ³ (TWA)	52 mg/m ³ (TWA)	NTP – 2** IARC – 2B***

NE= None established

NA= Not applicable

** Substances, which may reasonably be anticipated to be carcinogens.

*** Substance is possibly carcinogenic to humans.

3. HAZARDS IDENTIFICATIONS**PHYSICAL PROPERTIES:**

Appearance: Lightly yellow transparent liquid

Odor: Aromatic of solvent

EMERGENCY OVERVIEW:

Danger. EYE IRRITANT. POTENTIAL SKIN SENSITIZER

KEEP OUT OF REACH OF CHILDREN AND ANIMALS. Keep unused product in original container tightly closed, locked up and away from food.

Fatal or poisonous if swallowed. Harmful if inhaled. Avoid inhaling/breathing vapour or spray. Silencer 120 EC is severely irritating to the eyes and skin. Do not get in eyes or on skin. Potential skin sensitizer. If hands are contaminated, wash with soap and water before touching other areas of skin. When applying this product workers must wear long pants, long-sleeved shirts, and chemical resistant boots. In addition, during mixing, loading, clean-up and repair activities, workers must also wear chemical resistant gloves, safety goggles and a face shield. Avoid touching face with contaminated gloves or clothing. Wash gloves before removal. Wash protective equipment with soap and water after each use.

SYMPTOMS OF ACUTE EXPOSURE:

May cause eye and skin irritation. Harmful if swallowed. Allergic skin reactions are possible. Exposure to high vapor levels may cause headache, dizziness, numbness, nausea, incoordination, or other central nervous system effects. Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hours after exposure and may last 2-30 hours, without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

HAZARDOUS PRODUCTS OF COMBUSTION:

Product can decompose at high temperatures forming toxic gases.

4. FIRST AID MEASURES

FIRST AID:

IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

IF IN EYES: 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 centre or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

Take the container label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION:

This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

This product has potential for skin and eye irritation; treat symptomatically. In case of exposure to skin of face or other sensitive areas, some individuals may feel a tingling or numbness. This is a transitory effect and does not cause harm to skin.

5. FIRE FIGHTING MEASURES

FLASH POINT: 62° C (144° F)

FLAMMABLE LIMITS

LFL: Not applicable

UFL: Not applicable

AUTOIGNITION TEMPERATURE: Not available

EXTINGUISHING MEDIA: Dry chemical, foam or CO₂ extinguishing media.

UNUSUAL FIRE, EXPLOSION, AND REACTIVITY HAZARDS

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

HAZARDOUS DECOMPOSITION PRODUCTS

Product can decompose at high temperatures forming toxic gases.

FIRE-FIGHTING PROCEDURES

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area and equipment until decontaminated. Water runoff can cause environmental damage.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag. Contact Makhteshim Agan of North America Inc. at 1-800-535-5053 for further information.

For spills and leaks – contain the liquid with dikes of inert material (soil, clay, kitty litter, etc.). Absorb the spill onto inert material and shovel into a sealable waste container.

On hard surfaces – sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand 10 minutes then absorb onto an inert material and shovel into the waste container. Dispose of all waste, including broom, in accordance with provincial requirements.

On soil – remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste in accordance with provincial requirements. For more information on the disposal of waste and the clean-up of spills, contact the provincial regulatory agency and the manufacturer.

7. HANDLING AND STORAGE

HANDLING: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash hands thoroughly with soap and water after handling this product.

STORAGE: Store in a cool, well ventilated area away from foodstuffs and out of the reach of children and animals. Store above 0°C. Storage below 0°C will not impair the effectiveness of SILENCER 120 EC Emulsifiable Concentrate Insecticide, however, following such storage, agitate well before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURER, FORMULATION, PACKAGING AND USE OF THIS PRODUCT:

Ingestion: Prevent eating, drinking or tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye contact: Where eye contact is likely, use chemical splash goggles.

Skin contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear. Stringent housekeeping measures are necessary to prevent translocation of the material from contaminated work surfaces to uncontaminated surfaces (railings, doors, etc.). Unprotected contact with such translocated material can result in paresthesia effects (see Section 11 – Toxicological Information).

Inhalation: A combination particulate/organic vapor respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an R, P, or HE pre-filter. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

APPLICATORS AND OTHER HANDLERS MUST WEAR:

- Coveralls over long sleeved shirt and long pants
- Chemical resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or Viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Refer to product label.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Lightly yellow transparent liquid

ODOR: Aromatic of solvent

FLASH POINT: 62° C (144° F)

pH: 6.5-7.5

DENSITY: 0.925-0.935 kg/L

SOLUBILITY IN WATER (LAMBDA-CYHALTHRIN TECHNICAL): 0.004 mg/l

VAPOR PRESSURE (LAMBDA-CYHALTHRIN TECHNICAL): 1.5×10^{-9} mmHg @ 68° F (20° C)

10. STABILITY AND REACTIVITY

STABILITY: This product is stable under normal use and storage.

CONDITIONS TO AVOID: Do not use or store near heat or open flame.

MATERIALS TO AVOID: None known.

HAZARDOUS POLYMERIZATION: Not known to occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Can decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

Acute Oral LD ₅₀ (Rat):	98.11 mg/kg
Acute Dermal LD ₅₀ (Rat):	>2,000 mg/kg
Acute Inhalation LC ₅₀ (Rat):	1.83 mg/L air (4-hours)
Eye Irritation (Rabbit):	Mildly irritating
Dermal Irritation (Rabbit):	Slightly irritating
Dermal Sensitization:	Positive

REPRODUCTIVE/DEVELOPMENTAL EFFECTS:

Lambda-cyhalothrin Technical: Not a developmental or reproductive toxicant.

CHRONIC/SUBCHRONIC TOXICITY STUDIES:

Lambda-cyhalothrin Technical: Reversible paresthesia (abnormal skin sensation). Reversible clinical signs of neurotoxicity in mammals.

CARCINOGENICITY:

Lambda-cyhalothrin Technical: No treatment-related tumors in rats or mice.

OTHER TOXICITY INFORMATION: In humans, contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. The effect may result from splash, aerosol, or hot vapor contact, or transfer to the face from contaminated gloves and hands. The symptoms normally disappear within 24 hours. Face and genital areas are especially susceptible to this effect. Paresthesia involving the face is also known as "subjective facial sensation" or SFS.

TOXICITY OF OTHER COMPONENTS:

Naphthalene : Exposure to naphthalene can cause cataracts, liver damage, kidney failure, respiratory failure, hematuria, anemia, damage to red blood cells, leukocytosis, or coma.

TARGET ORGANS:

Lambda-cyhalothrin technical: Liver, nervous system

Naphthalene : Eye, liver, kidney, respiratory tract, blood, CNS

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This product is very toxic to fish and aquatic organisms. Do not contaminate ponds, lakes, streams or rivers during sprayer filling or rinsing operations or while spraying. Do not apply within 15 metres of productive fisheries water or waterfowl habitat when using ground boom sprayers, within 80 metres when using airblast sprayers.

This product is very toxic to bees. Avoid spraying when bees are foraging. Spray deposits should be dry before bees commence foraging in treated crop.

ECO-ACUTE TOXICITY:

(Lambda-cyhalothrin technical)

Bees LC50/EC50:	0.038 ug/bee
Invertebrates (water flea) LC50/EC50:	0.00036 ppm
Fish (trout) LC50/EC50:	0.00024 ppm
Fish (bluegill) LC50/EC50:	0.00021 ppm
Bird (Bobwhite quail) 8-day dietary LC50/EC50:	>5300 ppm
Bird (Mallard duck) 8-day dietary LC50/EC50:	>3948 ppm

ENVIRONMENTAL FATE: (Lambda-cyhalothrin Technical)

Not persistent in soil or water, Immobile in soil.

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency.

CONTAINER DISPOSAL: Recyclable Container: Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site: Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

14. TRANSPORT INFORMATION**DOT CLASSIFICATION:**

UN 3352, Pyrethroid pesticides, liquid, toxic, 6.1, PGIII

NOTE: Combination packages with inner packagings less than 4 liters (1.057 gallons) may be reclassified as a Consumer Commodity (ORM-D). These packages cannot be shipped by air freight.

NOTE: Consumer Commodity (ORM-D) classification is for domestic surface/ground shipments only (4x1-gallon and 4x1-quart packages). Air shipments remain regulated.

INTERNATIONAL TRANSPORTATION:

IMO (vessel): UN 3352, Pyrethroid pesticides, liquid, toxic (Lambda-cyhalothrin), 6.1, PGIII, Marine Pollutant

IATA (air): UN 3352, Pyrethroid pesticides, liquid, toxic (Lambda-cyhalothrin), 6.1, PGIII

15. REGULATORY INFORMATION**CANADIAN REGULATIONS:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the CPR.

Canadian Domestic Substance: Naphthalene CAS#: 91-20-3

SARA TITLE III CLASSIFICATION:

Section 302:	Not applicable
Section 311/312:	Acute health hazard (immediate) Chronic health hazard (delayed)
Section 313:	Naphthalene (7.89%) CAS: 91-20-3

CA PROPOSITION 65: Naphthalene

CERCLA RQ: Naphthalene: 100 lbs. (165 gallons product)

RCRA CLASSIFICATION: Not applicable

TSCA STATUS: Not applicable

16. OTHER INFORMATION

NFPA HAZARD RATINGS

HEALTH:	2	0	MINIMAL
FLAMMABILITY:	1	1	SLIGHT
REACTIVITY:	0	2	MODERATE
		3	HIGH
		4	SEVERE

MSDS DATE: 1-23-15. Supersedes version dated: 1-11-12. Changes made to Section 1.

The information herein is given in good faith, but no warrant, express or implied, is made. Consult ADAMA Agricultural Solutions Canada Ltd for further information.