

Safety Data Sheet (SDS) CYL 50EC/01

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According to SANS 10234/UN GHS 9th edition
Revision Date: 2022/01/24

First print date: 2015/05/03

Version: 3.5

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: **CYLAM 50 EC**

Additional information: Product code CYL 50EC/01

Relevant identification uses of the substance and uses advised against:

Identified uses: Insecticide.

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

AECI Limited
14 Field Road, LILANTON

Emergency telephone numbers:

Griffon Poison information centre: 082 446 8946
Poisons Information Helpline: 0861 555 777
AECI Limited: (011) 823 8000 (o/h) Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to

SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Flammable liquid (Category 3)	H226
Acute toxicity oral, dermal (Category 4)	H302 + H312
Acute toxicity inhalation (Category 2)	H330
Skin irritation (Category 2)	H315
Serious eye damage (Category 1)	H318
Aspiration hazard (Category 1)	H304
Germ cell mutagenicity (Category 1B)	H340
Carcinogenicity (Category 1B)	H350
Hazardous to the environment (Aquatic acute 1)	H400
Hazardous to the environment (Aquatic chronic 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: Flammable liquid.

The most important adverse human health effects: Fatal if inhaled. Harmful if swallowed or in contact with skin.
Causes serious eye damage and causes skin irritations.

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Label elements

Hazard pictograms:



Signal Word: Danger

Hazard Statements: H226 Flammable liquid and vapour. H302+H312 Harmful if swallowed and in contact with skin. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H318 Causes serious eye damage. H330 Fatal if inhaled. H340 May cause genetic defects. H350 May cause cancer. H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements: P210 Keep away from heat, hot surfaces, open flames and other ignition sources. No smoking. P260 Do not breathe mist/ vapours/ spray. P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor/ physician if you feel unwell.

Special labelling of certain mixtures: None

Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight	Classification
	EC-No.		EC1272/2008
Light aromatic petroleum	64742-95-6	70-80%	Flammable liquid (Category 3) H226. Aspiration toxicity (Category 1) H304. Mutagenicity (Category 1B) H340. Carcinogenicity (Category 1B) H350.
	265-199-0		
Isotridecanoethoxylate	69011-36-5	1-10%	Acute oral (Category 4) H302. Serious eye damage (Category 1) H318. Aquatic acute 2 H401.
	500-241-6		
Calcium dodecylbenzene sulphonate	90194-26-6	1-10%	Skin irritant (Category 2) H315. Serious eye damage (Category 1) H318.
	290-635-1		
Isobutanol	78-83-1	1-10%	Flammable liquid (Category 3) H226, STOT SE H335+H336. Skin irritant (Category 2) H315. Serious eye damage (Category 1) H318.
	201-148-0		
Lambda cyhalothrin	91465-08-6	1-10%	Acute toxicity oral (Category 3) H301. Acute toxicity dermal (Category 4) H311. Acute

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	415-130-7		toxicity inhalation (Category 2) H330. Aquatic acute (Category 1) H400. Aquatic chronic (Category 1) H410. M=10000
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For full text of H statements see section 16

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

In case of ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

Most important symptoms and effects, both acute and delayed:

Inhalation: Fatal by inhalation.

Ingestions: Harmful if swallowed.

Skin contact: May be harmful on contact with skin, causes skin irritation.

Eye contact: Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media:

SMALL FIRE: Use an extinguisher suitable for surrounding fire, water, foam, dry agent (carbon dioxide, dry chemical powder).

LARGE FIRE: Use an extinguisher suitable for surrounding fire, water, foam, dry agent (carbon dioxide, dry chemical powder).

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

Fumes, smoke and carbon monoxide.

Advice for fire-fighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent.

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Water spray should only be used to keep fire-exposed containers cool, flush spills away from exposures, disperse vapours and protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, municipal sewers, or drinking water supply.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling and Storage, for additional precautionary measures. Use appropriate safety equipment. For additional information refer to Section 8, Exposure Controls / Personal Protection.

For emergency responders: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling and Storage, for additional precautionary measures. Use appropriate safety equipment. For additional information refer to Section 8, Exposure Controls / Personal Protection.

Environmental precautions:

Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Methods for containment and cleaning up:

For small spills: Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite or diatomaceous earth

For large spills: Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

Reference to other sections:

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

Additional information:

None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid prolonged contact with concentrate. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

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Store away from all ignition sources in a cool, well ventilated area. This product is a static accumulator, therefore, all storage containers should be grounded and bonded. Drums should also be equipped with self-closing valves, pressure vacuum bungs and flame arresters.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL):

Iso butanol- TWA OEL-RL 50ppm, 150 mg/m³, STEL OEL-RL 75ppm, 225 mg/m³

Biological exposure indices (BEI): None.

Additional exposure limits under the conditions of use: None.

Exposure control: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Use in well ventilated area. Explosive-proof ventilation equipment with local exhaust is desirable.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Hand protection: Use chemical resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact when using this product. Dispose of contaminated gloves after use. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Respiratory protection is required; use an approved air-purifying respirator. Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Liquid.

Colour: Pale yellow clear solution.

Odour: Aromatic.

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Odour threshold: No information available.

pH (at concentration): 7.93 (1%)

Melting point/range (°C): No information available

Boiling point/range (°C): No information available

Flash point (°C): 37 °C (IP170) tested.

Evaporation rate: No information available.

Flammability (liquid): Flammable liquid and vapour.

Ignition temperature (°C): No information available.

Upper/lower flammability/explosive limits: No information available.

Vapour pressure (20°C): No information available.

Vapour density: No information available.

Density (25°C): 0.913 g/ml

Water solubility (g/l) at 20°C: No information available.

n-Octanol/Water partition coefficient: No information available

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

Viscosity, dynamic (mPa s): No information available.

Physical hazards:

Explosive properties: No information available.

Other information:

Fat solubility (solvent-oil to be specified): No information available.

Bulk density: No information available.

Dissociation constant in water (p Ka): No information available.

Oxidation-reduction potential: No information available.

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SECTION 10. STABILITY AND REACTIVITY

Reactivity:

The product is stable under normal conditions.

Chemical stability:

Stable to light. Stable under normal storage conditions for 2 years.

Possibility of hazardous reactions:

No information available.

Conditions to avoid:

Heat, sparks, flame and build-up of static electricity.

Incompatible materials:

Strong oxidisers.

Hazardous decomposition products:

Fumes, smoke, toxic gases and carbon monoxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Excretion:

Lambda cyhalothrin

In rats, following oral administration, rapidly eliminated in urine and faeces. The ester group is hydrolysed, both moieties forming polar conjugates.

Information on toxicological effects:

Acute toxicity:

Cylam 50 EC

Oral LD₅₀ for rat is 861 mg/kg (calculated).

Dermal LD₅₀ for rabbit is 11088 mg/kg (calculated).

Inhalation LC₅₀ (4 h) for rats 1.05 mg/ℓ for vapour (calculated).

Lambda cyhalothrin

Acute Oral LD₅₀ (female rat) – 56 mg/kg.

Acute Dermal LD₅₀ (rabbit) – 632-696 mg/kg.

Acute Inhalation LC₅₀ (4 h) (rat) – 0.06 mg/ ℓ

Chronic toxicity: No information available.

Skin corrosion/irritation: No information available.

Serious eye damage/irritation: No information available.

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Respiratory or skin sensitization: No information available.

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

Reproductive toxicity: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

This product is very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Isotridecanoethoxylate:

Toxicity to fish: LC₅₀ (96 h), *Leuciscus idus* 1 - 10 mg/ ℓ.

Aquatic invertebrates: EC₅₀ (48 h) 1 - 10 mg/ ℓ.

Aquatic plants: EC₅₀ (72 h) 1 - 10 mg/ ℓ.

Microorganisms/Effect on activated sludge: EC₁₀ (17 h) > 10,000 mg/ ℓ. (DIN 38412 Part 8)

Calcium dodecylbenzene sulphonate:

Toxicity to fish: LC₅₀ (96h) 1 mg/ ℓ.

Aquatic toxicity crustacean: EC₅₀ (48h) *Daphnia Magna*, 2.9 mg/ ℓ.

Aquatic toxicity algae: EC₅₀ (96h) 28 mg/ ℓ.

Isobutanol:

LC₅₀ (96 h) 1330 mg/ ℓ.

Aquatic toxicity crustacean: EC₅₀ (48h) *Daphnia Magna*, 1030 mg/ ℓ.

Lambda cyhalothrin:

Slightly toxic to birds, highly toxic to fish, invertebrates and bees.

Toxicity to bees: LD₅₀ oral 38 ng/bees

Toxicity to invertebrates: EC₅₀ (water flea) 0.36 µg/ ℓ.

Toxicity to fish: LC₅₀ (96 h). (Rainbow trout) 0.36 µg/ ℓ

LC₅₀ (96 h) Bluegill sunfish 0.21 µg/ ℓ.

Toxicity to birds: LD₅₀ >5300 mg/kg (8 day dietary – Bobwhite quail)

LD₅₀ >3950 mg/kg (acute oral- Mallard duck)

Persistence and degradability:

Isotridecanoethoxylate: Elimination information

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>= 90 % Bismuth-active substance (mod. OECD 301E)

> 60 % CO₂ formation relative to the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EEC,

C.4-C) Readily biodegradable.

Lambda cyhalothrin: Rapidly degraded in soil; DT50 for microbial degradation 23–82 d, for field soil 6–40 d.

Bioaccumulative potential:

No information available.

Mobility in soil

Lambda cyhalothrin:

Strongly adsorbed to soil and sediment organic matter. Negligible potential for leaching of lambda-cyhalothrin and its degradation products through soil.

Results of PBT& vPvB assessment:

No information available.

Other adverse effects:

No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	3351	3351	3351
UN Proper shipping name:	PYRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE FLASH POINT 23 °C OR MORE	PYRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE FLASH POINT 23 °C OR MORE	PYRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE FLASH POINT 23 °C OR MORE
Transport hazard class:	6.1	6.1	6.1
Packaging group:	II	II	II
Marine pollutant:	yes	yes	yes
Special precautions for user:	Fatal if inhaled	Fatal if inhaled	Fatal if inhaled
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	Not applicable	Not applicable	Not applicable

Inland waterways: Not applicable.

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SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH)

Relevant information regarding restrictions: None.

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC

Other National regulations:

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

Updated GHS classification, section 2.

Relevant classification and H statements (number and full text):

STOT SE-3 Specific Target Organ Toxicity single exposure (Category 3)

Aquatic acute 1-Hazardous to the environment (Aquatic acute 1)

Aquatic chronic 1-Hazardous to the environment (Aquatic chronic 1)

Aquatic acute 2-Hazardous to the environment (Aquatic acute 2)

H226 Flammable liquid and vapour. H301 Toxic if swallowed. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H311 Toxic in contact with skin. H312 Harmful in contact with skin. H315 Causes skin irritation. H318 Causes serious eye damage. H320 Causes eye irritation. H330 Fatal if inhaled. H331 Toxic if inhaled. H332 Harmful if inhaled. H335+ H336 May cause respiratory irritation, drowsiness and dizziness. H340 May cause genetic defects. H350 may cause cancer. H400 Very toxic to aquatic life. H401 Toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.