

1. Identification

Product identifier	AvestaTM CS	
Other means of identification		
SDS number	535	
Product registration number	74530-53-5481	
Recommended use	Pyrethroid type insecticide/miticide.	
Recommended restrictions	Keep out of the Reach of Children!	
EPA Registration number	EPA: 74530-53-5481	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	AMVAC Chemical Corporation	
Address	4695 MacArthur Court Suite 1200 Newport Beach, CA 92660	
Telephone	AMVAC Chemical Corp	949-260-1200
	AMVAC Chemical Corp	949-260-6270(FAX)
Website	www.amvac.com	
E-mail	CustServ@amvac.com	
Emergency phone number	Medical	888-681-4261
	CHEMTREC® (USA+Canada)	800-424-9300
	Product Use	888-462-6822
	CHEMTREC® (Outside USA)	+1-703-527-3887

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Not classified.	
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	

Label elements



Signal word	Warning
Hazard statement	Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Wear protective gloves and eye/face protection. Avoid release to the environment.
Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. Collect spillage.
Storage	Store in original container.

Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	This is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced in section 15. The pesticide label also includes other important information, including directions for use.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Lambda-Cyhalothrin		68085-85-8	9.7
Acetophenone		98-86-2	4
Inert ingredients		7732-18-5	86.3

4. First-aid measures

Inhalation	Move 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 CENTER or doctor/physician for further treatment advice.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center for treatment advice.
Ingestion	Call a physician or poison control center immediately. Do not give any liquid to the person. Do not induce vomiting without advice from poison control center.
Most important symptoms/effects, acute and delayed	Mild eye irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	The product itself does not burn. Use extinguishing agent suitable for type of surrounding fire.
Unsuitable extinguishing media	Not applicable, non-combustible.
Specific hazards arising from the chemical	Not applicable.
Special protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	This is a water base non-flammable liquid that will support fire only if the solvent is evaporated off first.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Wear appropriate protective equipment and clothing during clean-up. Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation.
Methods and materials for containment and cleaning up	Dike the spilled material. Absorb spill with vermiculite or other inert material. Shovel, sweep or vacuum up spillage and collect in suitable container for disposal.
Environmental precautions	Collect and dispose of spillage as indicated in section 13 of the SDS. Do not discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Read label before use. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities Store in a tightly closed container. Do not store near food, feed, fertilizers, seeds, insecticides or fungicides. Do not allow material to freeze.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Lambda-Cyhalothrin (CAS 68085-85-8)	PEL	5 mg/m ³

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetophenone (CAS 98-86-2)	TWA	10 ppm
Lambda-Cyhalothrin (CAS 68085-85-8)	TWA	5 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Lambda-Cyhalothrin (CAS 68085-85-8)	TWA	5 mg/m ³

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Acetophenone (CAS 98-86-2)	TWA	50 mg/m ³
		10 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Not available.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight fitting chemical goggles are recommended.

Skin protection

Hand protection Chemical resistant gloves.

Other Long-sleeved shirt and long pants or coveralls, socks and closed toe shoes are required.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.: Chemical respirator with organic vapor cartridge.

Thermal hazards Not available.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Encapsulated suspension.

Color Off-white

Odor Pungent

Odor threshold Not available.

pH 4.17

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density 1.01

Solubility(ies)

Solubility (water) Miscible

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

10. Stability and reactivity

Reactivity Not available.

Chemical stability Stable at normal conditions and storage conditions.

Possibility of hazardous reactions None known.

Conditions to avoid None known.

Incompatible materials Not available.

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx).

11. Toxicological information**Information on likely routes of exposure**

Inhalation Based on available data, the classification criteria are not met.

Skin contact Not a skin irritant or skin sensitizer.

Eye contact Not an eye irritant.

Ingestion None known.

Symptoms related to the physical, chemical and toxicological characteristics None known.

Information on toxicological effects**Acute toxicity**

Product	Species	Test Results
Avesta™ CS		
<u>Acute</u>		
Dermal		
<i>Liquid</i>		
LD50	Rat	> 5000 mg/kg
Inhalation		
<i>Liquid</i>		
LC50	Rat	> 2.23 mg/l, 4 h
Oral		
<i>Liquid</i>		
LD50	Rat	> 5000 mg/kg
Skin corrosion/irritation	Non irritating to skin.	
Serious eye damage/eye irritation	Non-irritating	

Respiratory or skin sensitization

Respiratory sensitization None known.

Skin sensitization Not a sensitizer.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure No specific target organ toxicity is expected after single exposure.

Specific target organ toxicity - repeated exposure No specific target organ toxicity is expected after repeated exposure.

Aspiration hazard None known.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.
Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

Product		Species	Test Results
Avesta™ CS			
Aquatic			
<i>Acute</i>			
Algae	LC50	Algae	28.7 mg/l, 72 h
Crustacea	LC50	Daphnia magna	24.3 µg/l, 48 h
Fish	LC50	Rainbow Trout (oncorhynchus mykiss)	0.06 mg/l, 96 h

Persistence and degradability Moderately persistent in the soil environment, with a half-life of approximately 30 days in most soils.

Bioaccumulative potential Bioaccumulation is unlikely.

Mobility in soil Active ingredient has a high affinity for soil.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site according to all applicable regulations.

Waste from residues / unused products Not available.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.
Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with all applicable regulations.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

UN number UN3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lambda-Cyhalothrin), MARINE POLLUTANT

Transport hazard class(es)

Class 9

Subsidiary risk -

Packing group III

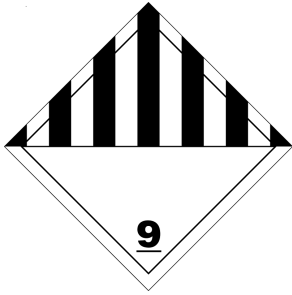
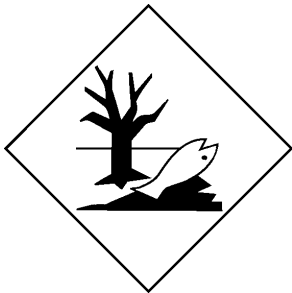
Environmental hazards

Marine pollutant Yes

EmS F-A, S-F

Special precautions for user Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

IMDG**Marine pollutant****15. Regulatory information****US federal regulations**

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

This product is registered under EPA/FIFRA Regulations. It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

United States Environmental Protection Agency (EPA) Labeling Requirements: This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!

Harmful if absorbed through skin. Avoid contact with eyes, skin, and clothing. Wash hands after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Toxic Substances Control Act (TSCA)**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetophenone (CAS 98-86-2)

Listed.

Lambda-Cyhalothrin (CAS 68085-85-8)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical No**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Acetophenone	98-86-2	4
Lambda-Cyhalothrin	68085-85-8	9.7

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Acetophenone (CAS 98-86-2)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations****California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Acetophenone (CAS 98-86-2)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	Oct-18-2019
Revision date	Oct-18-2019
Version #	2.0
HMIS® ratings	Health: 2* Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 0 Instability: 0

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NFPA is a trademark of the National Fire Protection Association, Inc.

Revision information

Hazard(s) identification: Hazard statement

Handling and storage: Precautions for safe handling

Toxicological information: Eye contact