

Safety Data Sheet

HCS-1169

**AEROCHEM**

1. Identification

Product identifier	HCS-1169
Product code	FLHCS116918.9LT ; FLHCS1169205LT
Other means of identification	N.Av.
Recommended use of the chemical and restrictions on use	Semi-Synthetic Cooling Fluid. Not recommended for any other use not detailed on product data sheet or label.
Manufacturer	AEROCHEM Inc. 5977 Trans Canada Highway Pointe-Claire, QC H9R 1C1 Canada General Information: 1-888-592-5837 www.aerochem.ca info@aerochem.ca
Emergency phone number	INFOTRAC®: 1-800-535-5053 International call collect: 1-352-323-3500 24 hours/day, 7 days/week

2. Hazard identification

Summary	Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If medical advice is needed, have this SDS or label at hand. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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WHMIS 2015/GHS/OSHA HCS 2012



Reproductive toxicity (Category 2)

WARNING

H361: Suspected of damaging fertility or the unborn child

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P264: Wash skin thoroughly after handling.

P280: Wear protective gloves, protective clothing and eye protection.

P308+313: IF exposed or concerned: Get medical attention.

P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P405: Store locked up.

P501: Dispose of contents and container to a licensed chemical disposal agency in accordance with local, regional and national regulations.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Triethanolamine	102-71-6	10 - 30 %
Sodium tetraborate, anhydrous	1330-43-4	0.5 - 5 %

Note: The manufacturer withholds the actual concentration range of the ingredients as a trade secret.

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Flush with water for at least 15 minutes. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention.
Eye contact	Flush with water for at least 15 minutes. Remove contact lenses if easy to do. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with plenty of water. Never give anything by mouth if victim is unconscious or convulsing. Seek medical attention or contact a Poison Centre immediately.
Other	No additional information.
Symptoms	May cause redness and slight irritation of the eyes.
Notes to the physician	If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemicals, water spray, chemical foam, carbon dioxide (CO ₂). Do not use a heavy water jet.
Specific hazards arising from the chemical	This product is an aqueous solution which does not support combustion unless the water has been evaporated.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Use water spray to cool fire-exposed containers. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and	Ventilate the area well. Stop leak, if it's possible to do so without risk. Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal clearly identified. Finish cleaning the contaminated surface by rinsing with soapy water. Dispose via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling	Use in well ventilated area. Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Avoid contamination with another chemical product. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Store tightly closed and in properly labelled containers in a cool, dry and well ventilated place. Store away from oxidizing materials and incompatible materials (see section 10). Keep away from direct sunlight and heat.
Storage temperature	10 to 40°C (50 to 104°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	No IDLH value is reported.
Triethanolamine	TWA (8h) Mist 5 mg/m ³ ACGIH , BC, RSST Mist 0.5 ppm 3.1 mg/m ³ ON
Sodium tetraborate, anhydrous	STEL 6 mg/m ³ ACGIH , BC, ON TWA (8h) 1 mg/m ³ RSST 2 mg/m ³ ACGIH , BC, ON
Appropriate engineering controls	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.
Individual protection measures	
Eye	Wear safety glasses with side shields. If there is a risk of contact with eyes, wear chemical splash goggles.
Hands	Wear nitrile or neoprene gloves. Disposable nitrile gloves can also be used, but discard after single use. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. Wear synthetic or a neoprene apron, if necessary, to prevent repeated or prolonged contact with skin.
Respiratory	Respiratory protection is not required for normal use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. In case of insufficient ventilation or in enclosed area until maximum 10 times of exposure limit, wear half mask respirator with organic vapors cartridges and fitted with a particulate filter P100.
Feet	Wear rubber boots to clean up a spill.



Safety glasses Nitrile gloves

9. Physical and chemical properties

Physical state	Liquid	Flammability	Non-flammable
Colour	Clear brown	Flammability limits	N/Av.
Odour	Odorless to faint	Flash point	>100 °C (212 °F)
Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	8.5 @ 5%	Sensibility to electrostatic charges	N/Av.
Melting point	N/Av.	Sensibility to sparks and/or friction	No
Freezing point	N/Av.	Vapour density	N/Av. (Air = 1)
Boiling point	100 °C (212 °F)	Relative density	1 to 1.01 kg/L (Water = 1)
Solubility	Soluble in water.	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	N/Av.	Decomposition temperature	N/Av.
Vapour pressure	N/Av.	Viscosity	N/Av.
Percent Volatile	N/Av.	Molecular mass	N/Av.
N/Av.: Not Available N/Av.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	No information available for this product.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid contact with incompatible materials. Avoid excessive heat for prolonged periods of time.
Incompatible materials	Strong acids, strong oxidizing agents (e.g. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates and perchlorates).
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	Triethanolamine	Ingestion 8000 mg/kg Rat LD50	
		Skin >2000 mg/kg Rabbit LD50	
Likely routes of exposure	Skin, eyes, inhalation, ingestion.	Sodium tetraborate, anhydrous	Ingestion 2660 mg/kg Rat LD50
			Inhalation >2 mg/l/4h Rat LC50
			Skin 10000 mg/kg Rabbit LD50

Delayed, immediate and chronic effects	Eye contact	May cause redness and slight irritation of the eyes. Eye Irritation/Corrosion, Rabbit (OECD TG 405): tests performed with each ingredient of this mixture gave not irritating to irritating results.
	Skin contact	Prolonged and repeated contact may cause dry skin, irritation or dermatitis. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with each ingredient of this mixture gave not irritating results.
	Inhalation	Prolonged or excessive exposure may cause headache, drowsiness, nausea, dizziness, respiratory tract irritation.
	Ingestion	Ingestion may cause gastrointestinal irritation and diarrhea.
	Respiratory or skin sensitization	Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.
	IARC/NTP Classification	No ingredients listed.
	Carcinogenicity	Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.
	Mutagenicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.
	Reproductive toxicity	Sodium tetraborate may cause adverse effects on sperm production and may also cause an embryotoxic and/or fetotoxic in animals.
Specific target organ toxicity - single exposure	No target organ is listed.	
Specific target organ toxicity - repeated exposure	No target organ is listed.	
Interactive effects	No information available.	
Other information	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimates (ATE) by inhalation of the mixture were calculated to be greater than 20 mg/L/4h for vapours and to be greater than 5 mg/L/4h for the dusts and mists. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.	

12. Ecological information

Ecological toxicity	Fish - Pimephales promelas - Fresh water	LC50	11800 mg/L; 96 h (CAS no 102-71-6)
	Aquatic Invertebrate - Daphnia Magna, Water flea, fresh water	EC50	1380 mg/L; 24 h (CAS no 102-71-6)
	Aquatic Plant - Algea, Scenedesmus subspicatus	EC50	169 mg/L; 96 h (CAS no 102-71-6)
	Fish - Common dab	LC50	74 mg/L; 96h (CAS no 1330-43-4)
	Aquatic Invertebrate - Daphnia magna (Water flea)	EC50	>100 mg/L; 48 h (CAS no 1330-43-4)
	Aquatic Plant - Algea, Desmodesmus subspicatus	EC50	158 mg/L; 96 h (CAS no 1330-43-4)
Persistence	Not persistent in environment.		
Degradability	The product is a mixture whose ingredients are readily biodegradable (> 60% in 28 days). The term biodegradability, as such, is not applicable to inorganic compounds.		
Bioaccumulative potential	The product is a mixture of which all ingredients have a low bioaccumulation potential (Log Kow of <3 and / or BCF <500).		
Mobility in soil	The product is a mixture of which some ingredients have a high mobility in the soil, while other ingredients have a moderate to low mobility in the soil.		

						HON	HAP			
Triethanolamine	102-71-6	X				X				
Sodium tetraborate, anhydrous	1330-43-4	X								

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

No ingredients listed.

Other regulations

HMIS	NFPA
<input type="radio"/> Health <input type="radio"/> Flammability <input type="radio"/> Reactivity <input type="radio"/> Protective Equipment	

16. Other information

Date (YYYY-MM-DD)	AEROCHEM Inc. 2020-03-03
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Version	03
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Other information	<p>REFERENCES:</p> <ul style="list-style-type: none"> - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, https://haz-map.com/ - Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca - The National Center for Biotechnology Information, National Institutes of Health (NIH), U.S. National Library of Medicine, https://pubchem.ncbi.nlm.nih.gov/ <p>DATE OF FIRST VERSION OF SDS: 2015-09-25.</p> <p>CHANGES MADE IN THE VERSION 02: section 3.</p> <p>DATE OF SECOND VERSION OF SDS: 2019-07-31.</p> <p>CHANGES MADE IN THE VERSION 03: section 1.</p> <p>ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association HMIS: Hazardous Materials Identification System NFPA: National Fire Protection Association OSHA: Occupational Safety and Health Administration (USA) NIOSH: National Institute for Occupational Safety and Health NTP: National Toxicology Program RSST: Règlement sur la santé et la sécurité du travail (Québec) GHS: Globally Harmonized System IARC: International Agency for Research on Cancer IDLH: Immediately Dangerous to Life or Health</p>
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STEL: Short Term Exposure Limit (15 min)
TWA: Time Weighted Averages
WHMIS: Workplace Hazardous Materials Information System

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