

Material Safety Data Sheet



Clario Foaming Alcohol Antimicrobial

1. Product and company identification

Product name	: Clario Foaming Alcohol Antimicrobial
Supplier	: Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 (800) 333-2156
Synonym	: Not available.
Trade name	: Not available.
Material uses	: Not available.
Manufacturer	: Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607
Code	: 774
MSDS #	: 774
Validation date	: 10/11/2012.
Print date	: 10/11/2012.
<u>In case of emergency</u>	: Chemtrec (800) 424-9300
Product type	: Liquid.

2. Hazards identification

Emergency overview

Physical state	: Liquid.
Color	: Blue. [Light]
Odor	: Fruity.
Signal word	: WARNING!
Hazard statements	: FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
Precautionary measures	: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Keep container tightly closed. Use personal protective equipment as required. Wash thoroughly after handling.

Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
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Potential acute health effects

Inhalation	: No known significant effects or critical hazards.
Ingestion	: Harmful if swallowed.
Skin	: May cause skin irritation.
Eyes	: Severely irritating to eyes. Risk of serious damage to eyes.

Potential chronic health effects

Chronic effects	: Contains material that may cause target organ damage, based on animal data.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

2. Hazards identification

Target organs : Contains material which may cause damage to the following organs: blood, the nervous system, the reproductive system, liver, upper respiratory tract, skin, eyes, central nervous system (CNS).

Over-exposure signs/symptoms

Inhalation : Not determined.

Ingestion : Not determined.

Skin : Adverse symptoms may include the following:
irritation
redness

Eyes : Adverse symptoms may include the following:
pain or irritation
watering
redness

Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

Name	CAS number	%
ETHYL ALCOHOL	64-17-5	40 - 60

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.

4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately. In case of contact with eyes, rinse immediately with plenty of water.

Skin contact : Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

- Flammability of the product** : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
- Extinguishing media**
- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Special remarks on fire hazards** : Not available.
- Special remarks on explosion hazards** : Not available.

6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. 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 container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). 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. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly

7. Handling and storage

closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

- : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

<u>Occupational exposure limits</u>		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	Notations
ETHYL ALCOHOL	US ACGIH 2/2010	-	-	-	1000	-	-	-	-	-	
	AB 4/2009	1000	1880	-	-	-	-	-	-	-	
	BC 9/2010	-	-	-	1000	-	-	-	-	-	
	ON 7/2010	-	-	-	1000	-	-	-	-	-	
	QC 6/2008	1000	1880	-	-	-	-	-	-	-	

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

- Engineering measures** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

- 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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory

- : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin

- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

8. Exposure controls/personal protection

Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Other protection	: Not available.
Personal protective equipment (Pictograms)	: Not available.

9. Physical and chemical properties

Physical state	: Liquid.
Flash point	: Closed cup: 14°C (57.2°F)
Burning time	: Not applicable.
Burning rate	: Not applicable.
Auto-ignition temperature	: Not available.
Flammable limits	: Not available.
Color	: Blue. [Light]
Odor	: Fruity.
Taste	: Not available.
Molecular weight	: Not applicable.
Molecular formula	: Not applicable.
pH	: 6.5 to 8.5
Boiling/condensation point	: Not available.
Melting/freezing point	: Not available.
Critical temperature	: Not available.
Relative density	: 0.8983
Vapor pressure	: Not available.
Vapor density	: Not available.
Volatility	: Not available.
Odor threshold	: Not available.
Evaporation rate	: Not available.
SADT	: Not available.
Viscosity	: Not available.
Ionicity (in water)	: Not available.
Dispersibility properties	: Easily dispersible in the following materials: cold water and hot water.
Solubility	: Easily soluble in the following materials: cold water and hot water.
Physical/chemical properties comments	: Not available.

10. Stability and reactivity

Chemical stability	: The product is stable.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ETHYL ALCOHOL	LC50 Inhalation Dusts and mists	Rat	124700 mg/m3	4 hours
	LD50 Oral	Rat	>1000 mg/kg	-

Conclusion/Summary : Not available.

Chronic toxicity

Not available.

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ETHYL ALCOHOL	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	400 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-

Conclusion/Summary : Not available.

Sensitizer

Not available.

Conclusion/Summary : Not available.

Carcinogenicity

Not available.

Conclusion/Summary : Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
ETHYL ALCOHOL	A3	1	-	-	-	-

Mutagenicity

Not available.

Conclusion/Summary : Not available.

Teratogenicity

Not available.

Conclusion/Summary : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary : Not available.

Synergistic products : Not available.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
ETHYL ALCOHOL	Acute EC50 17.921 mg/L Marine water Acute EC50 2000 ug/L Fresh water Acute LC50 25500 ug/L Marine water	Algae - Ulva pertusa Daphnia - Daphnia magna Crustaceans - Artemia franchiscana - Larvae	96 hours 48 hours 48 hours
	Acute LC50 42000 ug/L Fresh water Chronic NOEC 0.375 ul/L Fresh water	Fish - Oncorhynchus mykiss Fish - Gambusia holbrooki - Larvae - 3 days	4 days 12 weeks

Conclusion/Summary : Not available.

Persistence/degradability

Not available.

Conclusion/Summary : Not available.

Partition coefficient: n-octanol/water : Not available.

Bioconcentration factor : Not available.

Mobility : Not available.

Toxicity of the products of biodegradation : Not available.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Waste stream : Not available.

RCRA classification : Not available.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	1993	FLAMMABLE LIQUIDS, N.O.S. (ETHYL ALCOHOL)	3	II		Limited quantity Yes.
TDG Classification	1993	FLAMMABLE LIQUIDS, N.O.S. (ETHYL ALCOHOL)	3	II		Explosive Limit and Limited Quantity Index 1
Mexico Classification	1993	FLAMMABLE LIQUIDS, N.O.S. (ETHYL ALCOHOL)	3	II		-
ADR/RID Class	1993	FLAMMABLE LIQUIDS, N.O.S. (ETHYL ALCOHOL)	3	II		Special provisions 640 (C) Tunnel code (D/E)
IMDG Class	1993	FLAMMABLE LIQUIDS, N.O.S. (ETHYL ALCOHOL)	3	II		-
IATA-DGR Class	1993	FLAMMABLE LIQUIDS, N.O.S. (ETHYL ALCOHOL)	3	II		-

PG* : Packing group

15. Regulatory information

United States inventory (TSCA 8b) : Not determined.

WHMIS (Canada) : Not controlled under WHMIS (Canada).

Canadian lists

Canadian NPRI : The following components are listed: Ethyl alcohol

CEPA Toxic substances : None of the components are listed.

Canada inventory : Not determined.

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 Controlled Products Regulations.

International regulations

International lists

Australia inventory (AICS): Not determined.

China inventory (IECSC): Not determined.

Japan inventory: Not determined.

Korea inventory: Not determined.

New Zealand Inventory of Chemicals (NZIoC): Not determined.

Philippines inventory (PICCS): Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

15. Regulatory information

Chemical Weapons : Not listed
 Convention List Schedule
 II Chemicals
 Chemical Weapons : Not listed
 Convention List Schedule
 III Chemicals

16. Other information

Label requirements : FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

Hazardous Material Information System (U.S.A.) :

Health	*	2
Flammability		4
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

References : Not available.
Other special considerations : Not available.
Date of printing : 10/11/2012.
Date of issue : 10/11/2012.
Date of previous issue : No previous validation.
Version : 0.01
Prepared by : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.