

Material Safety Data Sheet

MSDS# J00530670_06202005

Section 1. Chemical Product and Company Identification

Product name	JACAAB-ETHOQUAD C/12		
Material Uses	: Surfactant.	In Case of Emergency	
Supplier/ Repackager	Jacaab LLC 4155 Manchester Avenue St. Louis, MO 63110	CHEMTREC:	800-424-9300
		Information:	314-533-4662

Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight
Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides	70750-47-9	74-77
Isopropanol	67-63-0	22-25
Water	7732-18-5	0.001-3
N-Cocoalkyl-2-2'-iminobisethanol-HCl	Not Assigned	0.001-2
Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.	61791-31-9	0.001-2

Section 3. Hazards Identification

Physical State	Liquid.
Color	Yellow.
Odor	Alcohol like.
Emergency Overview	<p>DANGER! CAUSES EYE AND SKIN BURNS. TOXIC TO AQUATIC ORGANISMS. FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, SKIN, EYES, CENTRAL NERVOUS SYSTEM. MAY BE HARMFUL TO ENVIRONMENT IF RELEASED IN LARGE AMOUNTS.</p>

Keep away from heat, sparks and flame. Do not get in eyes, on skin or on clothing. Avoid prolonged contact with eyes, skin, and clothing. Do not ingest. Avoid breathing vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Avoid contact of spilled material and runoff with soil and surface waterways.

Possible Carcinogenic Effects	<p>Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides: IARC, NTP, OSHA, ACGIH: Not listed. Isopropyl alcohol: IARC 3; ACGIH NTP OSHA Not listed. Water: IARC, NTP, OSHA, ACGIH: Not listed. N-Cocoalkyl-2-2'-iminobisethanol-HCL: IARC, NTP, OSHA, ACGIH: Not listed. Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.: IARC, NTP, OSHA, ACGIH: Not listed.</p>
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Routes of Entry	Absorbed through skin. Dermal contact. Eye contact.
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See Toxicological Information (section 11)

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Section 4. First Aid Measures

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.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Medical Conditions Aggravated by Overexposure	Repeated or prolonged exposure is not known to aggravate medical condition.

Section 5. Fire Fighting Measures

Flammability of the Product	Flammable.
Auto-ignition Temperature	The lowest known value is 450°C (842°F) (Isopropyl alcohol).
Flash Points	Closed cup: 20°C (68°F).
Flammable Limits	The greatest known range is LOWER: 2% UPPER: 12.7% (Isopropyl alcohol)
Products of Combustion	These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ ...).
Fire Hazards in Presence of Various Substances	Flammable in presence of open flames, sparks and static discharge.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Protective Clothing (Fire)	Be sure to use an approved/certified respirator or equivalent.
Special Remarks on Fire Hazards	No sparking tools should be used. Take precautionary measures against static discharges.

Section 6. Accidental Release Measures

Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill and Leak	Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.

Section 7. Handling and Storage

Handling	Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8. Exposure Controls, Personal Protection

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Eyes	Splash goggles.
Body	Lab coat.
Respiratory	Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Hands	Gloves.
Feet	Not applicable.

Protective Clothing (Pictograms)



Personal Protection in Case of a Large Spill

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Ingredient Name

Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides
Isopropanol

Exposure Limits United States

Not available.

ACGIH (United States, 1994).

STEL: 1230 mg/m³ 15 minute(s). Form:

STEL: 500 ppm 15 minute(s). Form:

TWA: 983 mg/m³ 8 hour(s). Form:

TWA: 400 ppm 8 hour(s). Form:

NIOSH REL (United States, 1994).

STEL: 1225 mg/m³ 15 minute(s). Form:

STEL: 500 ppm 15 minute(s). Form:

TWA: 980 mg/m³ 10 hour(s). Form:

TWA: 400 ppm 10 hour(s). Form:

OSHA Final Rule (United States, 1989).

STEL: 1225 mg/m³ 15 minute(s). Form:

STEL: 500 ppm 15 minute(s). Form:

TWA: 980 mg/m³ 8 hour(s). Form:

TWA: 400 ppm 8 hour(s). Form:

Water

Not available.

N-Cocoalkyl-2-2'-iminobisethanol-HCl

Not available.

Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.

Not available.

Section 9. Physical and Chemical Properties

Physical State	Liquid.
Color	Yellow.
Odor	Alcohol like.
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH	7 to 9 [Basic.]
Boiling/Condensation Point	80°C (176°F)
Melting/Freezing Point	10°C (50°F)

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Density	0.934 g/cm ³ (21°C / 69.8°F)
Vapor Pressure	4.3 kPa (32 mmHg) (at 20°C)
Vapor Density	The highest known value is 2.07 (Air = 1) (Isopropyl alcohol).
Odor Threshold	The lowest known value is 37 to 600 ppm (Isopropyl alcohol)
Evaporation Rate	Weighted average: 1.59 compared to Butyl acetate.
Solubility	Easily soluble in hot water, methanol, acetone. Soluble in cold water.
Dispersion Properties	See solubility in water, methanol, acetone. Viscosity = 2.2 cSt @ 20C. (Isopropyl alcohol)

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility with Various Substances	Reactive with OXIDIZING AGENTS.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Toxicity to Animals

Ingredient Name or Product name	Test	Result	Route	Species
ETHOQUAD® C/12	LD50	<1680 mg/kg	Dermal	Rabbit
Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides	LD50	400 mg/kg	Oral	Rat
Isopropanol	LD50	5045 mg/kg	Oral	Rat
	LD50	6410 mg/kg	Oral	Rabbit
	LD50	3600 mg/kg	Oral	Mouse
	LD50	12800 mg/kg	Dermal	Rabbit
	LC50	16000 ppm (8 hour(s))	Inhalation	Rat
Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.	LD50	6600 mg/kg	Oral	Rat based on data for: (similar material)

Special Remarks on Toxicity to Animals Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.: INHALATION LC50 = 88 ppm @ 1 hour(s) Rat

Chronic Effects on Humans

CARCINOGENIC EFFECTS: Classified None. by NIOSH [Isopropyl alcohol]. Classified 3 (Not classifiable for human.) by IARC [Isopropyl alcohol].
MUTAGENIC EFFECTS: Non-mutagenic for bacteria and/or yeast. [Isopropyl alcohol].
Contains material which may cause damage to the following organs: upper respiratory tract, skin, eyes, central nervous system (CNS).

Acute Effects Skin

Corrosive to the skin. Harmful in contact with skin.

Acute Effects Eyes

Corrosive to the eyes.

Special Remarks on Other Toxic Effects on Humans

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Section 12. Ecological Information

Ecotoxicity

Ingredient Name or Product name	Species	Period	Result
Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides	Zebrafish (LC50)	96 hour(s)	2.4 mg/l
Isopropanol	Fish (LC50)	96 hour(s)	>100 mg/l
Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.	Fish (LC50)	96 hour(s)	0.28 mg/l

Biodegradability and Ecotoxicity Remarks

Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides: 20% @ 42 day(s) CBT
Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.: 60% @ 28 day(s) CBT based on data for: (similar material)

Biodegradable/OECD

Inherently biodegradable.

Products of Degradation

These products are carbon oxides (CO, CO₂) and water, nitrogen oxides (NO, NO₂...).

Section 13. Disposal Considerations

Waste Information










Waste must be disposed of in accordance with federal, state and local environmental control regulations.

RCRA Classification




Code: D001 Ignitable Waste

Consult your local or regional authorities.

Section 14. Transport Information

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label	Additional information
DOT Classification	UN3286	Flammable liquid, toxic, corrosive, n.o.s. (Isopropyl alcohol, Quaternary ammonium salts)	3 6.1, 8	II	  	-
TDG Classification	UN3286	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (Isopropyl alcohol, Quaternary ammonium salts)	3 6.1, 8	II	  	-
IMDG Class	UN3286	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (Isopropyl alcohol, Quaternary ammonium salts)	3 6.1, 8	II	  	-

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IATA-DGR Class	UN3286	Flammable liquid, toxic, corrosive, n.o.s. (Isopropyl alcohol, Quaternary ammonium salts)	3 6.1, 8	II	  	-
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Section 15. Regulatory Information

HCS Classification

Highly toxic
Flammable liquid
Target organ effects
Corrosive Material

U.S. Federal Regulations

TSCA: All intentionally present components are listed on the TSCA inventory.

DSL: All intentionally present components are listed on the DSL.

CERCLA: Hazardous substances.: No products were found.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: ETHOQUAD® C/12

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: ETHOQUAD® C/12: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

SARA 313 Form R Reporting Requirements
No products were found.

SARA 313 Supplier Notification
No products were found.

State Regulations

Pennsylvania RTK: Isopropyl alcohol: (environmental hazard, generic environmental hazard)

Massachusetts RTK: Isopropyl alcohol

New Jersey: Isopropyl alcohol

California prop. 65: No products were found.

WHMIS (Canada)

Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).

Class D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).

Class E: Corrosive liquid.

CEPA DSL: Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides; Isopropyl alcohol; Water; Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.

European Union

Component

EC Number

EC Status

EC Annex

Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides

274-846-6

Not available.

Not available.

Isopropanol

200-661-7

Not available.

603-117-00-0

Water

231-791-2

Not available.

Not available.

N-Cocoalkyl-2-2'-iminobisethanol-HCl

Not available.

Not available.

Not available.

Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.

263-163-9

Not available.

Not available.

- Other International Lists**
- Australia (NICNAS): Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides; Isopropyl alcohol; Water; Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.
- Japan (MITI): Isopropyl alcohol
- Japan (MOL): Isopropyl alcohol
- Korea (TCCL): Isopropyl alcohol; Water; Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.
- Philippines (RA6969): Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides; Isopropyl alcohol; Water; Ethanol, 2,2'-iminobis-, n-coco alkyl derivs.

Section 16. Other Information

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

Health	3
Fire Hazard	3
Reactivity	0
Personal Protection	

National Fire Protection Association (U.S.A.)



Validation Date
Phone Number

6/20/2005
314-533-4662

Notice to Reader

The information in the material safety data sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable as of the date of publication. However, no warranty is made as to the accuracy of and/or sufficiency of such information and/or suggestions or as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nothing contained herein shall be construed as granting or extending any license under any patent. Buyer must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products. The information contained herein supersedes all previously issued bulletins on the subject matter covered. If the date on this document is more than three years old, call to make certain that this sheet is current.