

Material Safety Data Sheet

MSDS# J00530460_05272005

Section 1. Chemical Product and Company Identification

Product name	JACAAB-ARMOHIB 31		
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
proprietary alkoxyated fatty Amine. salts	proprietary	proprietary
proprietary alkoxyated Organic acid.	proprietary	proprietary
Thiourea, N,N'-dibutyl	109-46-6	20-30

Section 3. Hazards Identification

Physical State	Liquid.
Color	Amber.
Odor	fatty
Emergency Overview	<p>WARNING!</p> <p>CAUSES EYE IRRITATION.</p> <p>MAY BE HARMFUL IF SWALLOWED.</p> <p>MAY CAUSE SKIN IRRITATION.</p> <p>MAY CAUSE ALLERGIC SKIN REACTION.</p> <p>HARMFUL TO AQUATIC ORGANISMS.</p> <p>MAY BE HARMFUL TO ENVIRONMENT IF RELEASED IN LARGE AMOUNTS.</p> <p>Avoid contact with eyes, skin and clothing. Do not ingest. Wash thoroughly after handling. Avoid contact of spilled material and runoff with soil and surface waterways.</p>
Possible Carcinogenic Effects	<p>proprietary alkoxyated fatty Amine. salts: IARC, NTP, OSHA, ACGIH: Not listed.</p> <p>proprietary alkoxyated Organic acid.: IARC, NTP, OSHA, ACGIH: Not listed.</p> <p>Thiourea, N,N'-dibutyl: IARC, NTP, OSHA, ACGIH: Not listed.</p>
Routes of Entry	Absorbed through skin. Eye contact.

[See Toxicological Information \(section 11\)](#)

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. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

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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	May be combustible at high temperature.
Flash Points	Closed cup: >150°C (302°F).
Products of Combustion	These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ ...), sulfur oxides (SO ₂ , SO ₃ ...), halogenated compounds, hydrogen chloride.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Protective Clothing (Fire)	Be sure to use an approved/certified respirator or equivalent.

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. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill and Leak	Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

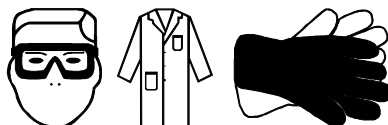
Section 7. Handling and Storage

Handling	Avoid contact with eyes, skin and clothing. Do not ingest. Wash thoroughly after handling. Avoid contact of spilled material and runoff with soil and surface waterways.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 48°C (118.4°F).

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	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. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Ingredient Name**Exposure Limits United States**

proprietary alkoxyated fatty Amine. salts	Not available.
proprietary alkoxyated Organic acid.	Not available.
Thiourea, N,N'-dibutyl	Not available.

Section 9. Physical and Chemical Properties

Physical State	Liquid.
Color	Amber.
Odor	fatty
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH	5.5 [Acidic.]
Melting/Freezing Point	-4°C (24.8°F)
Pour Point	0°C
Density	1.042 g/cm ³ (25°C / 77°F)
Vapor Pressure	<0.1 kPa (<1 mmHg) (at 20°C)
Vapor Density	The highest known value is 6.5 (Air = 1) (Thiourea, N,N'-dibutyl).
Solubility	Soluble in cold water.
Dispersion Properties	Viscosity = 1150 (#3 @ 60 RPM cps) Surface tension = 43.4 dynes/cm (0.1%), 41.5 dynes/cm (1.0%) HLB (Davies scale 0-40) = 30.4 (proprietary alkoxyated fatty Amine. salts)

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility with Various Substances	Reactive with oxidizing agents, acids. Slightly reactive to reactive with alkalis.
Hazardous Decomposition Products	These products are halogenated compounds, hydrogen chloride.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information**Toxicity to Animals**

Ingredient Name or Product name	Test	Result	Route	Species
proprietary alkoxyated fatty Amine. salts	LD50	>2000 mg/kg	Oral	Rat
proprietary alkoxyated Organic acid.	LD50	>5000 mg/kg	Oral	Rat
Thiourea, N,N'-dibutyl	LD50	350 mg/kg	Oral	Rat

Acute Effects Skin Moderately irritating to the skin.

Acute Effects Eyes Severely irritating to the eyes.

Special Remarks on Other Toxic Effects on Humans :
proprietary alkoxyated fatty Amine. salts: Skin and Eyes based on data for: (similar material)
proprietary alkoxyated Organic acid.: Skin and Eyes based on data for: (similar material)

Section 12. Ecological Information

Ecotoxicity

Ingredient Name or Product name	Species	Period	Result
proprietary alkoxyated fatty Amine.	Trout (LC50)	96 hours	24 mg/l
salts	Algae. (EC50)	96 hours	3.9 mg/l

Biodegradability and Ecotoxicity Remarks

proprietary alkoxyated fatty Amine. salts: 11% @ 28 day(s) CBT; 26% @ 112 day(s) CBT

Products of Degradation

These products are carbon oxides (CO, CO₂) and water, nitrogen oxides (NO, NO₂...), sulfur oxides (SO₂, SO₃...), halogenated compounds.

Section 13. Disposal Considerations

Waste Information

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

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	Not regulated.	-	-			-
TDG Classification	Not regulated.	-	-			-
IMDG Class	Not regulated.	-	-			-
IATA-DGR Class	Not regulated.	-	-			-

Section 15. Regulatory Information

HCS Classification

Irritating 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: ARMOHIB® 31

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: ARMOHIB® 31:

Immediate (Acute) Health Hazard

SARA 313 Form R Reporting Requirements

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No products were found.

SARA 313 Supplier Notification

No products were found.

State Regulations

No products were found.

California prop. 65: No products were found.

WHMIS (Canada)

Class D-2B: Material causing other toxic effects (TOXIC).

CEPA DSL: proprietary alkoxyated fatty Amine. salts; proprietary alkoxyated Organic acid.; Thiourea, N,N'-dibutyl

European Union	Component	EC Number	EC Status	EC Annex
	proprietary alkoxyated fatty Amine. salts	proprietary	proprietary	proprietary
	proprietary alkoxyated Organic acid. Thiourea, N,N'-dibutyl	proprietary 203-674-6	proprietary Not available.	proprietary Not available.

Other International Lists

Australia (NICNAS): proprietary alkoxyated fatty Amine. salts; proprietary alkoxyated Organic acid.; Thiourea, N,N'-dibutyl

Japan (MITI): Thiourea, N,N'-dibutyl

Korea (TCCL): proprietary alkoxyated fatty Amine. salts; proprietary alkoxyated Organic acid.; Thiourea, N,N'-dibutyl

Philippines (RA6969): proprietary alkoxyated fatty Amine. salts; Thiourea, N,N'-dibutyl

Section 16. Other Information

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

Health	2
Fire Hazard	1
Reactivity	0
Personal Protection	

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



Validation Date
Phone Number

5/27/2005.
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.