

Material Safety Data Sheet

MSDS# J00530405_072005

Section 1. Chemical Product and Company Identification

Product name	JACAAB-ARMEEN 18D		
Material Uses	: Surfactant.	In Case of Emergency	
Supplier/ Repackager	JACAAB LLC 4155 Manchester Avenue St. Louis, MO 63110	CHEMTREC:	800-424-9300
		Information:	314-652-5400

Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight
Octadecylamine	124-30-1	95-100
1-Octadecanamine, N-octadecyl-	112-99-2	0.001-2

Section 3. Hazards Identification

Physical State	Solid. (Waxy solid.)
Color	White.
Odor	Ammoniacal. (Slight.)
Emergency Overview	<p>WARNING! VERY TOXIC TO AQUATIC ORGANISMS. CAUSES EYE IRRITATION. MAY CAUSE SKIN IRRITATION.</p> <p>Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid contact of spilled material and runoff with soil and surface waterways.</p>
Possible Carcinogenic Effects	<p>Octadecylamine: IARC, NTP, OSHA, ACGIH: Not listed. 1-Octadecanamine, N-octadecyl-: IARC, NTP, OSHA, ACGIH: Not listed.</p>
Routes of Entry	Absorbed through skin. Dermal contact. 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. 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. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
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). (Pensky-Martens.)
Products of Combustion	These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ ...).
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	Use appropriate tools to put the spilled solid in a convenient 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	Use a shovel to put the material into a convenient waste disposal container. 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. 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.

Section 8. Exposure Controls, Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
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Personal Protection

Eyes	Splash goggles.
Body	Lab coat.
Respiratory	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. 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	Exposure Limits United States
Octadecylamine	Not available.
1-Octadecanamine, N-octadecyl-	Not available.

Section 9. Physical and Chemical Properties

Physical State	Solid. (Waxy solid.)
Color	White.
Odor	Ammoniacal. (Slight.)
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
Boiling/Condensation Point	349°C (660.2°F)
Melting/Freezing Point	56°C (132.8°F)
Pour Point	65°C
Density	0.791 g/cm ³ (60°C / 140°F)
Vapor Pressure	<0.01 kPa (<0.1 mmHg) (at 20°C)
Vapor Density	The highest known value is 9.29 (Air = 1) (Octadecylamine).
Evaporation Rate	<1 compared to Butyl acetate.
Solubility	Very slightly soluble in cold water.
Dispersion Properties	Not available.
Physical Chemical Comments	Viscosity = 43.7 SSU @ 55°C; 42.2 SSU @ 55°C; 39.9 SSU @ 55°C.

Section 10. Stability and Reactivity

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

Section 11. Toxicological Information

Toxicity to Animals

Ingredient Name or Product name	Test	Result	Route	Species
Octadecylamine	LD50	>2000 mg/kg	Oral	Rat
1-Octadecanamine, N-octadecyl-	LD50	>10000 mg/kg	Oral	Rat based on data for: (similar material)

Special Remarks on Toxicity to Animals **Octadecylamine:** NOEL = 500 ppm (two-year dietary) in rats.
NOEL = 3 mg/kg/day (two-year dietary) in dogs.

Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified None. by NIOSH [Octadecylamine]. MUTAGENIC EFFECTS: Non-mutagenic for bacteria and/or yeast. [Octadecylamine].
Acute Effects Skin	Moderately irritating to the skin.
Acute Effects Eyes	Severely irritating to the eyes.

Section 12. Ecological Information

Ecotoxicity

Ingredient Name or Product name	Species	Period	Result
Octadecylamine	Daphnia (EC50)	48 hour(s)	<1 mg/l
	Algae (EC50)	72 hour(s)	<1 mg/l

Biodegradability and Ecotoxicity Remarks

Octadecylamine: 55% @ 28 day(s) CBT based on data for: (similar material); 72% @ 42 day(s) CBT based on data for: (similar material)
1-Octadecanamine, N-octadecyl-: 4% @ 28 day(s) CBT based on data for: (similar material)

Biodegradable/OECD

Readily 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.

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.

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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: Octadecylamine
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Octadecylamine:
 Immediate (Acute) Health Hazard
 SARA 313 Form R Reporting Requirements
 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: Octadecylamine; 1-Octadecanamine, N-octadecyl-

European Union

Component	EC Number	EC Status	EC Annex
Octadecylamine	204-695-3	Not available.	Not available.
1-Octadecanamine, N-octadecyl-	204-020-2	Not available.	Not available.

Other International Lists

Australia (NICNAS): Octadecylamine; 1-Octadecanamine, N-octadecyl-
 Japan (MITI): Octadecylamine; 1-Octadecanamine, N-octadecyl-
 Korea (TCCL): Octadecylamine; 1-Octadecanamine, N-octadecyl-
 Philippines (RA6969): Octadecylamine; 1-Octadecanamine, N-octadecyl-

Section 16. Other Information**Hazardous Material Information System (U.S.A.)**

Health	2
Fire Hazard	1
Reactivity	0
Personal Protection	E

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

07/20/2005

Phone Number

314-652-5400

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.