

Material Safety Data Sheet

MSDS# J00530700_052805

Section 1. Chemical Product and Company Identification

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

Do not ship to Canada.

Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight
Amines, N-tallow alkyltrimethylenedi-, tallates	61790-55-4	98-100
Amines, n-tallow alkyl trimethylenedi-	61791-55-7	0.001-2
Fatty acids, tall-oil	61790-12-3	0.001-2

Section 3. Hazards Identification

Physical State	Solid.
Color	Amber.
Odor	Ammoniacal.
Emergency Overview	DANGER! CAUSES EYE AND SKIN BURNS. MAY BE HARMFUL IF SWALLOWED. Do not get in eyes, on skin or on clothing. Do not ingest. Avoid breathing dust/vapor. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Possible Carcinogenic Effects	Amines, N-tallow alkyltrimethylenedi-, tallates: IARC, NTP, OSHA, ACGIH: Not listed. Amines, n-tallow alkyl trimethylenedi-: IARC, NTP, OSHA, ACGIH: Not listed. Fatty acids, tall-oil: IARC, NTP, OSHA, ACGIH: Not listed.
Routes of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation.

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 for at least 15 minutes while removing contaminated clothing and shoes. 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.

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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 exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage.

Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Flash Points	Closed cup: 235°C (455°F).
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.
Large Spill and Leak	Stop leak if without risk. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Do not get water inside container. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.

Section 7. Handling and Storage

Handling	Do not ingest. Avoid breathing dust/vapor. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
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.
Personal Protection	
Eyes	Splash goggles.
Body	Synthetic apron.
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
Amines, N-tallow alkyltrimethylenedi-, tallates	Not available.
Amines, n-tallow alkyl trimethylenedi-	Not available.
Fatty acids, tall-oil	Not available.

Section 9. Physical and Chemical Properties

Physical State	Solid.
Color	Amber.
Odor	Ammoniacal.
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
Melting/Freezing Point	30 to 40°C (86 to 104°F)
Pour Point	35°C
Density	0.865 g/cm ³ (65°C / 149°F)
Vapor Pressure	<0.01 kPa (<0.1 mmHg) (at 20°C)
Evaporation Rate	The highest known value is 1 (Amines, N-tallow alkyltrimethylenedi-, tallates) Weighted average: 1 compared to Butyl acetate.
Solubility	Very slightly soluble in cold water.
Dispersion Properties	Not available. Viscosity = 670 mPas @ 30C; 370 mPas @ 40C; 230 mPas @ 50C. (Amines, N-tallow alkyltrimethylenedi-, tallates)

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
Amines, N-tallow alkyltrimethylenedi-, tallates	LD50	945 mg/kg	Oral	Rat (based on similar product data)
Amines, n-tallow alkyl trimethylenedi-	LD50	945 mg/kg	Oral	Rat
Fatty acids, tall-oil	LD50	>10000 mg/kg	Oral	Rat
	LD50	>2000 mg/kg	Dermal	Rabbit

Special Remarks on Toxicity to Animals Amines, n-tallow alkyl trimethylenedi-: Sub-chronic, NOEL (rat) = 670 ppm.

Acute Effects Skin Corrosive to the skin. Practically non-toxic in contact with skin.

Acute Effects Eyes Corrosive to the eyes.

Special Remarks on Other Toxic Effects on Humans : Amines, N-tallow alkyltrimethylenedi-, tallates: Skin and Eyes based on data for: similar product.

Section 12. Ecological Information

Ecotoxicity

Ingredient Name or Product name	Species	Period	Result
Amines, n-tallow alkyl trimethylenedi-	Fish (LC50)	96 hour(s)	0.1 to 0.15 mg/l
Fatty acids, tall-oil	Fish (LC50)	24 hour(s)	50 to 100 mg/l
	Fish (LC50)	96 hour(s)	10 to 20 mg/l
	Fish (LC50)	96 hour(s)	10 mg/l
	Daphnia (EC50)	48 hour(s)	55.7 mg/l

Biodegradability and Ecotoxicity Remarks Amines, n-tallow alkyl trimethylenedi-: 62% @ 28 day(s) CBT based on data for: (similar material)





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	UN1759	Corrosive solids, n.o.s. (Fatty acid salts of polyamines)	8 -	III		-
TDG Classification	UN 1759	CORROSIVE SOLID, N.O.S. (Fatty acid salts of polyamines)	8 -	III		-
IMDG Class	UN 1759	CORROSIVE SOLID, N.O.S. (Fatty acid salts of polyamines)	8 -	III		-
IATA-DGR Class	UN 1759	Corrosive solid, n.o.s. (Fatty acid salts of polyamines)	8 -	III		-

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Section 15. Regulatory Information

HCS Classification	Corrosive Material			
U.S. Federal Regulations	<p>TSCA: All intentionally present components are listed on the TSCA inventory.</p> <p>DSL: One or more of the intentionally present components in this material is not on the DSL.</p> <p>CERCLA: Hazardous substances.: No products were found.</p> <p>SARA 302/304/311/312 extremely hazardous substances: No products were found.</p> <p>SARA 302/304 emergency planning and notification: No products were found.</p> <p>SARA 302/304/311/312 hazardous chemicals: DUOMEEN® TDO</p> <p>SARA 311/312 MSDS distribution - chemical inventory - hazard identification: DUOMEEN® TDO: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard</p> <p>SARA 313 Form R Reporting Requirements No products were found.</p> <p>SARA 313 Supplier Notification No products were found.</p>			
State Regulations	<p>No products were found.</p> <p>California prop. 65: No products were found.</p>			
WHMIS (Canada)	<p>Class E: Corrosive solid.</p> <p>CEPA DSL: Amines, n-tallow alkyl trimethylenedi-; Fatty acids, tall-oil</p> <p>CEPA NDSL: Amines, N-tallow alkyltrimethylenedi-, tallates</p>			
European Union	Component	EC Number	EC Status	EC Annex
	Amines, N-tallow alkyltrimethylenedi-, tallates	263-146-6	Not available.	Not available.
	Amines, n-tallow alkyl trimethylenedi- Fatty acids, tall-oil	263-189-0 263-107-3	Not available. Not available.	Not available. Not available.
Other International Lists	<p>Australia (NICNAS): Amines, N-tallow alkyltrimethylenedi-, tallates; Amines, n-tallow alkyl trimethylenedi-; Fatty acids, tall-oil</p> <p>Japan (MITI): Fatty acids, tall-oil</p> <p>Korea (TCCL): Amines, N-tallow alkyltrimethylenedi-, tallates; Amines, n-tallow alkyl trimethylenedi-; Fatty acids, tall-oil</p> <p>Philippines (RA6969): Amines, n-tallow alkyl trimethylenedi-; Fatty acids, tall-oil</p>			

Section 16. Other Information

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

Health	3
Fire Hazard	1
Reactivity	0
Personal Protection	

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



Validation Date

5/28/2005

Phone Number

314-533-4662

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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.