



Material Safety Data Sheet

MSDS# 15-061

Section 1. Chemical Product and Company Identification

Product name	ARMEEN® DMCD	
Material Uses	: Surfactant.	In Case of Emergency
Supplier/ Manufacturer	AKZO NOBEL SURFACE CHEMISTRY LLC 525 West Van Buren Chicago, IL 60607-3823 www.surfactants.akzonobel.com AKZO NOBEL CHEMICALS LTD. 1 City Centre Drive, Suite 318 Mississauga, Ontario L5B 1M2 Canada	CHEMTREC: 800-424-9300 CANUTEC: 613-996-6666 Medical/Handling: 914-693-6946 Product/Technical: 800-906-9977

Section 2. Hazards Identification

Physical State	Liquid.
Color	Yellow. (Light.)
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 vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Possible Carcinogenic Effects	amines, coco alkyldimethyl: IARC, NTP, OSHA, ACGIH: Not listed. amines, dicoco alkylmethyl: IARC, NTP, OSHA, ACGIH: Not listed. Amines, coco alkyl: IARC, NTP, OSHA, ACGIH: Not listed.
Routes of Entry	Absorbed through skin. Dermal contact. Eye contact.

See Toxicological Information (section 11)

Section 3. Composition/ Information on Ingredients

Name	CAS #	% by Weight
amines, coco alkyldimethyl	61788-93-0	95-99
amines, dicoco alkylmethyl	61788-62-3	0.001-3
Amines, coco alkyl	61788-46-3	0.001-1

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 30 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 30 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 or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Flash Points	Closed cup: >149°C (300.2°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	Absorb with an inert material and put the spilled material in an appropriate waste disposal. If necessary: Use suitable protective equipment (Section 8).
Large Spill and Leak	Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Use suitable protective equipment (Section 8).

Section 7. Handling and Storage

Handling	Do not ingest. Avoid breathing vapors or spray mists. 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.

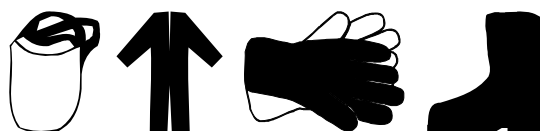
Section 8. Exposure Controls/ Personal Protection

Engineering Controls	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.
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Personal Protection

Eyes	Face shield.
Body	Full suit.
Respiratory	Wear appropriate respirator when ventilation is inadequate.
Hands	Gloves.
Feet	Boots.

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.
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Ingredient Name

Exposure Limits United States

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amines, coco alkyldimethyl	Not available.
amines, dicoco alkylmethyl	Not available.
Amines, coco alkyl	Not available.

Section 9. Physical and Chemical Properties

Physical State	Liquid.
Color	Yellow. (Light.)
Odor	Ammoniacal.
pH	Basic.
Boiling/Condensation Point	60 to 172°C (140 to 341.6°F)
Melting/Freezing Point	-14°C (6.8°F)
Pour Point	-12°C
Density	0.789 g/cm ³ (100°C / 212°F)
Vapor Pressure	Weighted average: 0.01 kPa (0.08 mmHg) (at 20°C)
Evaporation Rate	<1 (amines, dicoco alkylmethyl) compared to Butyl acetate.
Solubility	Very slightly soluble in cold water.
Dispersion Properties	Not available.
Physical Chemical Comments	Viscosity = 46.2SSU @ 25°C; 42.2SSU @ 35°C; 38.2SSU @ 45°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
amines, coco alkyldimethyl	LD50	1400 mg/kg	Oral	Rat based on data for: (similar material)
amines, dicoco alkylmethyl	LD50	>1740 mg/kg	Oral	Rat
Amines, coco alkyl	LD50	1300 mg/kg	Oral	Rat
	LD50	>2000 mg/kg	Dermal	Rabbit

Special Remarks on Toxicity to Animals **amines, dicoco alkylmethyl:** Sub-Chronic oral toxicity (LD50) = 1 mg/kg/day; 13 weeks (rat) based on data for: (similar material)
Amines, coco alkyl: INHALATION LC50 > 0.099 mg/L, 1 hour(s) Rat

Acute Effects Skin Corrosive to the skin.

Acute Effects Eyes Corrosive to the eyes.

Section 12. Ecological Information

Ecotoxicity

Ingredient Name or Product name	Species	Period	Result
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amines, dicoco alkylmethyl	Algae. based on data for: (similar material) (EC50)	72 hour(s)	0.12 mg/l
	Algae. based on data for: (similar material) (EC50)	72 hour(s)	0.05 mg/l
Amines, coco alkyl	daphnia based on data for: (similar material) (EC50)	48 hour(s)	0.032 mg/l

Biodegradability and Ecotoxicity Remarks

amines, coco alkyl dimethyl: 69% @ 28 day(s) CBT based on data for: (similar material)
amines, dicoco alkylmethyl: 82% @ 28 day(s) CBT
Amines, coco alkyl: 56% @ 28 day(s) CBT 74% @ 42 day(s) CBT

Biodegradable/OECD







Readily biodegradable.

Products of DegradationThese 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	UN2735	Amines, liquid, corrosive, n.o.s. (Fatty acid derived amines). Marine pollutant (Alkyl (C12-C14) dimethylamine)	8 -	III	 	Marine pollutant Marine pollutant (P)
TDG Classification	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. (Fatty acid derived amines)	8 -	III		Special Provisions Classified in Accordance with UN Recommendations
IMDG Class	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. (Fatty acid derived amines). Marine pollutant (Alkyl (C12-C14) dimethylamine)	8 -	III	 	Marine pollutant Marine pollutant (P)
IATA-DGR Class	UN2735	Amines, liquid, corrosive, n.o.s. (Fatty acid derived amines)	8 -	III		-

Section 15. Regulatory Information

HCS Classification 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.
 TSCA 5(a)2 final significant rules: No products were found.
 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: ARMEEN® DMCD
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: ARMEEN® DMCD:
 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 E: Corrosive liquid.
 CEPA DSL: amines, coco alkyldimethyl; amines, dicoco alkylmethyl; Amines, coco alkyl

European Union	Component	EC Number	EC Status	EC Annex
	amines, coco alkyldimethyl	263-020-0	Not available.	Not available.
	amines, dicoco alkylmethyl	262-990-2	Not available.	Not available.
	Amines, coco alkyl	262-977-1	Not available.	Not available.

Other International Lists Australia (NICNAS): amines, coco alkyldimethyl; amines, dicoco alkylmethyl; Amines, coco alkyl
 China: amines, coco alkyldimethyl; amines, dicoco alkylmethyl; Amines, coco alkyl
 Germany water class: amines, coco alkyldimethyl; Amines, coco alkyl
 Japan (MITI): amines, coco alkyldimethyl; amines, dicoco alkylmethyl; Amines, coco alkyl
 Korea (TCCL): amines, coco alkyldimethyl; amines, dicoco alkylmethyl; Amines, coco alkyl
 Philippines (RA6969): amines, coco alkyldimethyl; Amines, coco alkyl

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.)



Other Information Armeen® is a registered trademark of Akzo Nobel or affiliated companies and is registered in one or more countries including the United States.

Validation Date 5/14/2007.

Previous Validation Date 5/18/2005.

Validated by

Print Date

Phone Number

Product Safety Specialist

5/15/2007.

312-544-7038

Notice to Reader

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