



# Material Safety Data Sheet

MSDS# 15-0344

## Section 1. Chemical Product and Company Identification

<b>Product name</b>	<b>ARQUAD® T-27W</b>	
<b>Material Uses</b>	: Surfactant.	<b>In Case of Emergency</b>
<b>Supplier/ Manufacturer</b>	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

<b>Physical State</b>	Liquid.
<b>Color</b>	Colorless to light yellow.
<b>Odor</b>	Faint Odor
<b>Emergency Overview</b>	<p>WARNING! CAUSES EYE BURNS. VERY TOXIC TO AQUATIC ORGANISMS. CAUSES SEVERE SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY BE HARMFUL TO ENVIRONMENT IF RELEASED IN LARGE AMOUNTS.</p> <p>Do not get in eyes. Do not ingest. Avoid breathing vapor or mist. Avoid contact with skin and clothing. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Avoid contact of spilled material and runoff with soil and surface waterways.</p>
<b>Possible Carcinogenic Effects</b>	<p><b>Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides:</b> IARC, NTP, OSHA, ACGIH: Not listed. <b>water:</b> IARC, NTP, OSHA, ACGIH: Not listed. <b>Dimethyl tallowalkyl amines hydrochlorides:</b> IARC, NTP, OSHA, ACGIH: Not listed. <b>amines, dimethyltallow alkyl:</b> IARC, NTP, OSHA, ACGIH: Not listed.</p>
<b>Routes of Entry</b>	Absorbed through skin. Dermal contact. Eye contact.

See Toxicological Information (section 11)

## Section 3. Composition/ Information on Ingredients

Name	CAS #	% by Weight
Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides	8030-78-2	27
water	7732-18-5	68-73
Dimethyl tallowalkyl amines hydrochlorides	Not Assigned	0.001-2
amines, dimethyltallow alkyl	68814-69-7	0.001-2

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## Section 4. First Aid Measures

<b>Eye Contact</b>	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.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water for at least 30 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.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion</b>	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.
<b>Medical Conditions Aggravated by Overexposure</b>	Repeated or prolonged exposure is not known to aggravate medical condition.

## Section 5. Fire Fighting Measures

<b>Flammability of the Product</b>	May be combustible at high temperature.
<b>Flash Points</b>	Closed cup: >100°C (212°F).
<b>Products of Combustion</b>	These products are carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ...), halogenated compounds, hydrogen chloride.
<b>Fire Fighting Media and Instructions</b>	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
<b>Protective Clothing (Fire)</b>	Be sure to use an approved/certified respirator or equivalent.

## Section 6. Accidental Release Measures

<b>Small Spill and Leak</b>	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.
<b>Large Spill and Leak</b>	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: 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

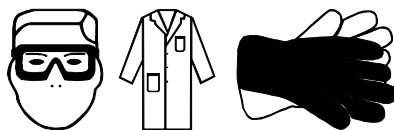
<b>Handling</b>	Do not ingest. Avoid breathing vapors or spray mists. Avoid contact with skin and clothing. Do not get in eyes. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Avoid contact of spilled material and runoff with soil and surface waterways.
<b>Storage</b>	Keep container tightly closed. Keep container in a cool, well-ventilated area.

## Section 8. Exposure Controls/ Personal Protection

<b>Engineering Controls</b>	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.
<b>Personal Protection</b>	
<b>Eyes</b>	Splash goggles.
<b>Body</b>	Lab coat.

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<b>Respiratory</b>	Wear appropriate respirator when ventilation is inadequate.
<b>Hands</b>	Gloves.
<b>Feet</b>	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.

<b>Ingredient Name</b>	<b>Exposure Limits United States</b>
Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides water	Not available.
Dimethyl tallowalkyl amines hydrochlorides	Not available.
amines, dimethyltallow alkyl	Not available.

## Section 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid.
<b>Color</b>	Colorless to light yellow.
<b>Odor</b>	Faint Odor
<b>pH</b>	6 to 9 [Basic.]
<b>Boiling/Condensation Point</b>	Weighted average: 100°C (212°F)
<b>Melting/Freezing Point</b>	18°C (64.4°F)
<b>Density</b>	0.974 g/cm <sup>3</sup> (25°C / 77°F)
<b>Vapor Pressure</b>	2.3 kPa (17 mmHg) (at 20°C)
<b>Evaporation Rate</b>	Weighted average: 0.37 compared to Butyl acetate.
<b>Solubility</b>	Easily soluble in cold water, hot water, methanol, acetone.
<b>Dispersion Properties</b>	See solubility in water, methanol, acetone.
<b>Physical Chemical Comments</b>	Viscosity = 47 SSU @ 25C; 45 SSU @ 35C; 42 SSU @ 45C; 39 SSU @ 55C. (amines, dimethyltallow alkyl)

## Section 10. Stability and Reactivity

<b>Stability and Reactivity</b>	The product is stable.
<b>Incompatibility with Various Substances</b>	Reactive with OXIDIZING AGENTS.
<b>Hazardous Decomposition Products</b>	These products are halogenated compounds, hydrogen chloride.
<b>Hazardous Polymerization</b>	Will not occur.

## Section 11. Toxicological Information

**Toxicity to Animals**

<b>Ingredient Name or Product name</b>	<b>Test</b>	<b>Result</b>	<b>Route</b>	<b>Species</b>
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Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides	LD50	1260 mg/kg	Oral	Rat based on data for: (similar material)
	LD50	>2000 mg/kg	Dermal	Rabbit based on data for: (similar material)
amines, dimethyltallow alkyl	LD50	1230 mg/kg	Oral	Rat based on data for: (similar material)
	LD50	8000 mg/kg	Dermal	Rabbit based on data for: (similar material)

**Chronic Effects on Humans**

**MUTAGENIC EFFECTS:** Non-mutagenic for bacteria and/or yeast. [Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides].

**Special Remarks on Chronic Effects on Humans**

**Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides:** Mutagenic Effects based on data for: (similar material)

**Acute Effects Skin**

Severely irritating to the skin. Practically non-toxic in contact with skin.

**Acute Effects Eyes**

Corrosive to the eyes.

## Section 12. Ecological Information

**Ecotoxicity**

Ingredient Name or Product name	Species	Period	Result
Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides amines, dimethyltallow alkyl	Trout based on data for: (similar material) (LC50)	96 hour(s)	0.3 mg/l
	daphnia based on data for: (similar material) (EC50)	48 hour(s)	0.35 mg/l
	Bluegill. based on data for: (similar material) (LC50)	96 hour(s)	2.1 mg/l
	Shrimp. based on data for: (similar material) (LC50)	96 hour(s)	0.074 mg/l

**Biodegradability and Ecotoxicity Remarks**

**Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides:** 48% @ 28 day(s) CBT based on data for: (similar material); 51% @ 57 day(s) CBT based on data for: (similar material)

**Biodegradable/OECD**

Inherently biodegradable.

**Products of Degradation**

These products are carbon oxides (CO, CO<sub>2</sub>) and water, nitrogen oxides (NO, NO<sub>2</sub>...), 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.	-	-	-		-

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IATA-DGR Class	Not regulated.	-	-	-	-
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## 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: No products were found.  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.  
 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: Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides; water; amines, dimethyltallow alkyl

European Union	Component	EC Number	EC Status	EC Annex
	Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides	232-447-4	Not available.	Not available.
	water	231-791-2	Not available.	Not available.
	Dimethyl tallowalkyl amines hydrochlorides	Not available.	Not available.	Not available.
	amines, dimethyltallow alkyl	272-339-4	Not available.	Not available.

**Other International Lists** Australia (NICNAS): Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides; water; amines, dimethyltallow alkyl  
 China: water; amines, dimethyltallow alkyl  
 Japan (MITI): water  
 Korea (TCCL): Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides; water; amines, dimethyltallow alkyl  
 Philippines (RA6969): Quaternary ammonium compounds, trimethyl tallow alkyl, chlorides; water; amines, dimethyltallow 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** Arquad® is a registered trademark of Akzo Nobel or affiliated companies and is registered in one or more countries including the United States.

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Validated by **Product Safety Specialist**  
 Print Date 5/15/2007.  
 Phone Number **312-544-7038**

### 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.