

Material Safety Data Sheet

MSDS# 15-3441

Section 1. Chemical Product and Company Identification

Product name **ETHOMEEN® O/12**

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

CHEMTREC: 800-424-9300
CANUTEC: 613-996-6666
Medical/Handling: 914-693-6946
Product/Technical: 800-906-9977

AKZO NOBEL CHEMICALS LTD.
1 City Centre Drive, Suite 318
Mississauga, Ontario L5B 1M2
Canada

Section 2. Hazards Identification

Physical State Liquid.
Color Yellow.
Odor Amine like.

Emergency Overview DANGER!
CAUSES EYE BURNS.
CAUSES SEVERE SKIN IRRITATION.
MAY BE HARMFUL IF SWALLOWED.
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: SKIN, EYES.
HARMFUL TO AQUATIC ORGANISMS.
MAY BE HARMFUL TO ENVIRONMENT IF RELEASED IN LARGE AMOUNTS.

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.

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
ethanol, 2,2'-(9-octadecenylimino)bis-, (z)-	13127-82-7	98-100
oleylamine	112-90-3	0.001-2
poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-	25322-68-3	0.001-2

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.

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Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
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.
Auto-ignition Temperature	The lowest known value is >150°C (302°F) (poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-).
Flash Points	Closed cup: >200°C (392°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	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	Absorb with an inert material and put the spilled material in an appropriate waste disposal. Use suitable protective equipment (Section 8).

Section 7. Handling and Storage

Handling	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.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

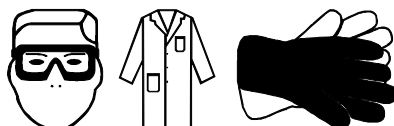
Section 8. Exposure Controls/ Personal Protection

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	Splash goggles.
Body	Lab coat.
Respiratory	Wear appropriate respirator when ventilation is inadequate.
Hands	Gloves.
Feet	Suitable protective footwear.

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

ethanol, 2,2'-(9-octadecenylimino)bis-, (z)-
 oleylamine
 poly(oxy-1,2-ethanediyl),
 .alpha.-hydro-.omega.-hydroxy-

Exposure Limits United States

Not available.
 Not available.

AIHA WEEL (United States, 2005).

TWA: 10 mg/m³ 8 hour(s). Form: Aerosol

Section 9. Physical and Chemical Properties

Physical State	Liquid.
Color	Yellow.
Odor	Amine like.
pH	11 to 12 [Basic.]
Boiling/Condensation Point	>300°C (572°F)
Melting/Freezing Point	-9°C (15.8°F)
Cloud Point	-6°C
Pour Point	-7°C
Density	0.904 g/cm ³ (25°C / 77°F)
Vapor Pressure	<0.01 kPa (<0.1 mmHg) (at 20°C)
Vapor Density	The highest known value is >10 (Air = 1) (poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-).
Evaporation Rate	Weighted average: 0.89 compared to Butyl acetate.
Ionicity (in Water)	Cationic. (oleylamine).
Solubility	Easily soluble in acetone. Soluble in hot water, methanol. Very slightly soluble in cold water.
Dispersion Properties	Partially dispersed in diethyl ether. See solubility in water, methanol, acetone.
Physical Chemical Comments	Viscosity = 70cp @ 40°C.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	oleylamine: Not sensitive to Static Discharge. Not sensitive to Mechanical Impact.
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
ethanol,	LD50	1200 to 1500	Oral	Rat based on data for:
2,2'-(9-octadecenylimino)bis-, (z)-		mg/kg		(similar material)
oleylamine	LD50	1950 mg/kg	Oral	Rat based on data for:
				(similar material)
poly(oxy-1,2-ethanediyl),	LD50	600 mg/kg	Oral	Rat
.alpha.-hydro-.omega.-hydroxy-	LD50	1054 mg/kg	Oral	Rat
	LD50	27500 mg/kg	Oral	Rat
	LD50	>20000 mg/kg	Dermal	Rabbit

Special Remarks on Toxicity to Animals

oleylamine: INHALATION > 0.033 mg/L 1 hour(s) Rat based on data for: (similar material). The NOEL in dogs dosed with a mixture of oleylamine and hexadecylamine hydrofluoride salts was 12 mg/kg/day (highest dose tested).
Administration of a mixture of oleylamine and hexadecylamine hydrofluoride salts the diet of rats resulted in enlarged lymphnodes and gastrointestinal discoloration at doses of 1.2 mg/kg/day and above.

Chronic Effects on Humans

MUTAGENIC EFFECTS: Classified None. for human [oleylamine]. Non-mutagenic for bacteria and/or yeast. [oleylamine].
TERATOGENIC EFFECTS: Classified None. for human [oleylamine].
Contains material which may cause damage to the following organs: skin, eyes.

Special Remarks on Chronic Effects on Humans

oleylamine: Chromosomal (DNA) abnormalities will not occur in CHO mammalian cell assay, the In Vivo Cytogenetics Assay in mice, the CHO/HGPRT mammalian cell assay and the Mouse Lymphoma Assay.

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
oleylamine	Fathead Minnow (LC50)	96 hour(s)	0.11 mg/l
	Daphnia (EC50)	48 hour(s)	0.011 mg/l
	Algae (EC50)	96 hour(s)	0.03 mg/l
poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-	Oncorhynchus mykiss (LC50)	96 hour(s)	>20000 mg/l
	Fish (LC50)	24 hour(s)	>5000 mg/l
Biodegradability and Ecotoxicity Remarks			
oleylamine: 44% @ 28day(s)CBT 72% @ 42day(s)CBT poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-: 5% @ 5 day(s) CBT 38% @ 10 day(s) CBT 70% @ 20 day(s) CBT			

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	UN2735	Amines, liquid, corrosive, n.o.s. (Alkoxylated fatty amines)	8 -	III		Remarks Not regulated as a marine pollutant per DOT.
TDG Classification	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated fatty amines)	8 -	III		Special Provisions Classified in Accordance with UN Recommendations
IMDG Class	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. Marine pollutant (Alkoxylated fatty amines)	8 -	III		Marine pollutant Marine pollutant (P)

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IATA-DGR Class	UN2735	Amines, liquid, corrosive, n.o.s. (Alkoxylated fatty amines)	8	III		-

Section 15. Regulatory Information

HCS Classification

Target organ effects
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 E: Corrosive liquid.

CEPA DSL: ethanol, 2,2'-(9-octadecenylimino)bis-, (z)-; oleylamine; poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-

European Union

Component

EC Number

EC Status

EC Annex

ethanol, 2,2'-(9-octadecenylimino)bis-, (z)-

236-062-2

Not available.

Not available.

oleylamine

204-015-5

Not available.

Not available.

poly(oxy-1,2-ethanediyl),

500-038-2

NLP.

Not available.

.alpha.-hydro.-omega.-hydroxy-

Other International Lists

Australia (NICNAS): ethanol, 2,2'-(9-octadecenylimino)bis-, (z)-; oleylamine; poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-

China: ethanol, 2,2'-(9-octadecenylimino)bis-, (z)-; oleylamine; poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-

Japan (MITI): oleylamine; poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-

Korea (TCCL): oleylamine; poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-

Philippines (RA6969): ethanol, 2,2'-(9-octadecenylimino)bis-, (z)-; oleylamine; poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-

Section 16. Other Information

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

Health	3
Fire Hazard	1
Physical Hazards	0
Personal Protection	

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



Other Information Ethomeen® 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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Phone Number 312-544-7038

Product Safety Specialist

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.