

Material Safety Data Sheet

MSDS# J00530650

Section 1. Chemical Product and Company Identification

| | | | |
|---------------------------------|--|--|--|
| Product name | JACAAB-ETHOMEEN T/12 | | |
| Material Uses | : Surfactant. | In Case of Emergency | |
| Supplier/ Repackager | AKZO NOBEL SURFACE CHEMISTRY LLC 525 West Van Buren Chicago, IL 60607-3823 | CHEMTREC: JACAAB Medical/Handling: | 800-424-9300 314-652-5400 914-693-6946 |
| | JACAAB LLC 4155 Manchester Ave St. Louis, MO 63110 | | |

Section 2. Composition, Information on Ingredients

| Name | CAS # | % by Weight |
|--|------------|-------------|
| Ethanol, 2,2'-iminobis, n-tallow alkyl derivs. | 61791-44-4 | 97-100 |
| Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy- | 25322-68-3 | 0.001-2 |
| Amines, tallow alkyl | 61790-33-8 | 0.001-2 |

Section 3. Hazards Identification

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| Physical State | Liquid. |
| Color | Amber. |
| Odor | Amine like. |
| Emergency Overview | DANGER! CAUSES EYE AND SKIN BURNS. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL TO AQUATIC ORGANISMS. MAY BE HARMFUL TO ENVIRONMENT IF RELEASED IN LARGE AMOUNTS. Do not get in eyes, on skin or on clothing. Do not ingest. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Avoid contact of spilled material and runoff with soil and surface waterways. |
| Possible Carcinogenic Effects | Ethanol, 2,2'-iminobis, N-tallow alkyl derivs.: IARC, NTP, OSHA, ACGIH: Not listed. Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy-: IARC, NTP, OSHA, ACGIH: Not listed. Amines, tallow alkyl: IARC, NTP, OSHA, ACGIH: Not listed. |
| Routes of Entry | Absorbed through skin. Dermal contact. Eye contact. |

See Toxicological Information (section 11)

Continued on Next Page

Section 4. First Aid Measures

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| 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. |
| 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

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| 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), a-hydroxy-w-hydroxy-). |
| Flash Points | Closed cup: >100°C (212°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

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| 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. 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 DRY earth, sand or other non-combustible material. 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 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

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| Handling | Do not ingest. Avoid breathing vapors or spray mists. Avoid prolonged or repeated contact with skin. 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. |

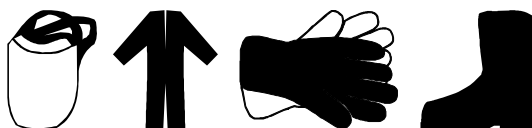
Section 8. Exposure Controls, Personal Protection

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.

Personal Protection

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| 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.

Ingredient Name

Ethanol, 2,2'-iminobis, n-tallow alkyl derivs.
Poly(oxy-1,2-ethanediyl),
a-hydroxy-w-hydroxy-
Amines, tallow alkyl

Exposure Limits United States

Not available.
Not available.
Not available.

Section 9. Physical and Chemical Properties

| | |
|-----------------------------------|---|
| Physical State | Liquid. |
| Color | Amber. |
| Odor | Amine like. |
| Molecular Weight | Not applicable. |
| Molecular Formula | Not applicable. |
| pH | Acidic. |
| Boiling/Condensation Point | >300°C (572°F) |
| Melting/Freezing Point | 29°C (84.2°F) |
| Cloud Point | 29°C |
| Pour Point | 33°C |
| Density | 0.916 g/cm ³ (25°C / 77°F) |
| Vapor Pressure | <0.01 kPa (<0.1 mmHg) (at 20°C) |
| Solubility | Very slightly soluble in cold water. |
| Dispersion Properties | Not available. Viscosity = 34 cp @ 50°C; 29 cp @ 70°C. |

Section 10. Stability and Reactivity

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| Stability and Reactivity | The product is stable. |
| Incompatibility with Various Substances | Reactive with OXIDIZING AGENTS, acids. |

Section 11. Toxicological Information

Toxicity to Animals

| Ingredient Name or Product name | Test | Result | Route | Species |
|--|------|--------------------|--------|---------|
| Ethanol, 2,2'-iminobis, n-tallow alkyl derivs. | LD50 | 1200 to 1500 mg/kg | Oral | Rat |
| Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy- | LD50 | 28000 mg/kg | Oral | Rat |
| | LD50 | 31000 mg/kg | Oral | Mouse |
| | LD50 | 14000 mg/kg | Oral | Rabbit |
| | LD50 | >20000 mg/kg | Dermal | Rabbit |
| Amines, tallow alkyl | LD50 | 1950 mg/kg | Oral | Rat |

Special Remarks on Toxicity to Animals

Ethanol, 2,2'-iminobis, N-tallow alkyl derivs.: INHALATION LC50 = 220 ppm @1 hour, rat based on data for: (similar material)
Amines, tallow alkyl: INHALATION > 0.033 mg/L 1 hour(s) Rat; highest concentration tested.

Chronic Effects on Humans

MUTAGENIC EFFECTS: Classified None. for human [Amines, tallow alkyl]. Non-mutagenic for bacteria and/or yeast. [Amines, tallow alkyl].

Special Remarks on Chronic Effects on Humans

Amines, tallow alkyl: 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; based on a similar material.

Acute Effects Skin

Corrosive to the skin. May cause sensitization by skin contact. 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 |
|--|--|------------|-------------|
| Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy- | Daphnia (EC50) | 48 hour(s) | >10000 mg/l |
| | Fish (LC50) | 24 hour(s) | >5000 mg/l |
| Amines, tallow alkyl | Minnows based on data for: (similar material) (LC50) | 96 hour(s) | 0.11 mg/l |
| | daphnia based on data for: (similar material) (EC50) | 48 hour(s) | 0.011 mg/l |
| | Algae. based on data for: (similar material) (EC50) | 72 hour(s) | 0.03 mg/l |

Biodegradability and Ecotoxicity Remarks

Ethanol, 2,2'-iminobis, N-tallow alkyl derivs.: 52% @ 28 day(s) CBT; 62% @ 35 day(s) CBT based on data for: (similar material)
Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy-: 5% @ 5 day(s) CBT 38% @ 10 day(s) CBT 70% @ 20 day(s) CBT
Amines, tallow alkyl: 55% @ 28 day(s) CBT. 72% @ 42 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. (Alkoxyated fatty amines) | 8 - | III |  | - |
| TDG Classification | UN2735 | AMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxyated fatty amines) | 8 - | III |  | Special Provisions Classified in Accordance with UN Recommendations |
| IMDG Class | UN2735 | AMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxyated fatty amines) | 8 - | III |  | - |
| IATA-DGR Class | UN2735 | Amines, liquid, corrosive, n.o.s. (Alkoxyated fatty 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.

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: ETHOMEEN® T/12

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: ETHOMEEN® T/12:

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: Ethanol, 2,2'-iminobis, N-tallow alkyl derivs.; Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy-; Amines, tallow alkyl

Component

EC Number

EC Status

EC Annex

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| | | | | |
|-----------------------|--|----------------|----------------|----------------|
| European Union | Ethanol, 2,2'-iminobis, n-tallow alkyl derivs. | 263-177-5 | Not available. | Not available. |
| | Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy- | Not available. | Not available. | Not available. |
| | Amines, tallow alkyl | 263-125-1 | Not available. | Not available. |

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|----------------------------------|--|--|--|--|
| Other International Lists | Australia (NICNAS): Ethanol, 2,2'-iminobis, N-tallow alkyl derivs.; Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy-; Amines, tallow alkyl | | | |
| | Japan (MITI): Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy-; Amines, tallow alkyl | | | |
| | Korea (TCCL): Ethanol, 2,2'-iminobis, N-tallow alkyl derivs.; Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy-; Amines, tallow alkyl | | | |
| | Philippines (RA6969): Ethanol, 2,2'-iminobis, N-tallow alkyl derivs.; Poly(oxy-1,2-ethanediyl), a-hydroxy-w-hydroxy-; Amines, tallow alkyl | | | |

Section 16. Other Information

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

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|---------------------|---|
| Health | 3 |
| Fire Hazard | 1 |
| Reactivity | 0 |
| Personal Protection | |

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



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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.