

**Material Safety Data Sheet**

MSDS# 15-0607

**Section 1. Chemical Product and Company Identification****Product name** REDICOTE® E-4819**Material Uses** : Asphalt Additive.**In Case of Emergency****Supplier/Manufacturer** AKZO NOBEL SURFACE CHEMISTRY LLC  
525 West Van Buren  
Chicago, IL 60607-3823CHEMTREC: 800-424-9300  
CANUTEC: 613-996-6666  
Medical/Handling: 914-693-6946  
Product/Technical: 800-906-9977**Do not ship to Canada.****Section 2. Composition, Information on Ingredients**

| Name                           | CAS #       | % by Weight |
|--------------------------------|-------------|-------------|
| proprietary Fatty polyamines 1 | proprietary | 42          |
| proprietary Fatty amines       | proprietary | 41          |
| proprietary Fatty polyamines 2 | proprietary | 17          |

**Section 3. Hazards Identification****Physical State** Liquid.**Color** Amber.**Odor** Ammoniacal.**Emergency Overview** DANGER!  
CAUSES EYE AND SKIN BURNS.  
VERY TOXIC TO AQUATIC ORGANISMS.  
MAY BE HARMFUL IF SWALLOWED.  
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. 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** **proprietary Fatty polyamines 1:** IARC, NTP, OSHA, ACGIH: Not listed.  
**proprietary Fatty amines:** IARC, NTP, OSHA, ACGIH: Not listed.  
**proprietary Fatty polyamines 2:** IARC, NTP, OSHA, ACGIH: Not listed.**Routes of Entry** Absorbed through skin. Dermal contact. Eye contact.[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. 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.**Continued on Next Page**

|  |  |
|--|--|
| <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 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

|   |   |
|---|---|
| <b>Flammability of the Product</b>          | May be combustible at high temperature.   |
| <b>Flash Points</b>                         | Closed cup: >175°C (347°F). (Pensky-Martens.)   |
| <b>Products of Combustion</b>               | These products are carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ...).     |
| <b>Fire Fighting Media and Instructions</b> | SMALL FIRE: Use DRY chemical powder.<br>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.  |
| <b>Special Remarks on Fire Hazards</b>      | Avoid heating above 65°C (150°F).   |

## Section 6. Accidental Release Measures

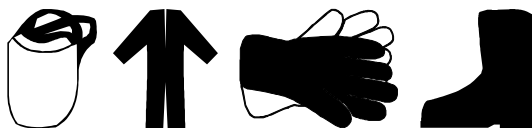
|                             |  |
|-----------------------------|--|
| <b>Small Spill and Leak</b> | Absorb with an inert material and put the spilled material in an appropriate waste disposal. If necessary: <b>Use suitable protective equipment (Section 8).</b>   |
| <b>Large Spill and Leak</b> | Stop 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. <b>Use suitable protective equipment (Section 8).</b> |

## Section 7. Handling and Storage

|                 |  |
|-----------------|--|
| <b>Handling</b> | Do not ingest. Avoid breathing vapors or spray mists. 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. Store between 35 to 50°C (95 to 122°F).   |

## 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>                 | Face shield.  |
| <b>Body</b>                 | Full suit.  |
| <b>Respiratory</b>          | Wear appropriate respirator when ventilation is inadequate.   |
| <b>Hands</b>                | Gloves.   |
| <b>Feet</b>                 | 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**

proprietary Fatty polyamines 1  
 proprietary Fatty amines  
 proprietary Fatty polyamines 2

**Exposure Limits United States**

Not available.  
 Not available.  
 Not available.

**Section 9. Physical and Chemical Properties**

|                                   |   |
|-----------------------------------|---|
| <b>Physical State</b>             | Liquid.   |
| <b>Color</b>                      | Amber.  |
| <b>Odor</b>                       | Ammoniacal.   |
| <b>Molecular Weight</b>           | Not applicable.   |
| <b>Molecular Formula</b>          | Not applicable.   |
| <b>pH</b>                         | Basic.  |
| <b>Boiling/Condensation Point</b> | 300°C (572°F)   |
| <b>Melting/Freezing Point</b>     | 29°C (84.2°F)   |
| <b>Cloud Point</b>                | 40°C  |
| <b>Pour Point</b>                 | 30°C  |
| <b>Density</b>                    | 0.84 g/cm <sup>3</sup> (30°C / 86°F)  |
| <b>Vapor Pressure</b>             | <0.01 kPa (<0.1 mmHg) (at 20°C)   |
| <b>Evaporation Rate</b>           | <1 compared to Butyl acetate.   |
| <b>Solubility</b>                 | Insoluble in cold water.  |
| <b>Dispersion Properties</b>      | Not available.  |
| <b>Physical Chemical Comments</b> | Viscosity = 37 mPas (cP) @ 30°C; 20 mPas (cP) @ 40°C; 9 mPas (CP) @ 50°C; 7 mPas (cP) @ 60°C. |

**Section 10. Stability and Reactivity**

|  |  |
|--|--|
| <b>Stability and Reactivity</b>                | The product is stable.                 |
| <b>Incompatibility with Various Substances</b> | Reactive with OXIDIZING AGENTS, acids. |
| <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> |
|--|-------------|---------------|--------------|----------------|
| proprietary Fatty polyamines 1         | LD50        | 945 mg/kg     | Oral         | Rat            |
| proprietary Fatty amines               | LD50        | 1950 mg/kg    | Oral         | Rat            |
| proprietary Fatty polyamines 2         | LD50        | 960 mg/kg     | Oral         | Rat            |

**Special Remarks on Toxicity to Animals**

**proprietary Fatty polyamines 1:** Sub-chronic, NOEL (rat) = 670 ppm.  
**proprietary Fatty amines:** INHALATION > 0.033 mg/L 1 hour(s) Rat; highest concentration tested.

**Chronic Effects on Humans**

**MUTAGENIC EFFECTS:** Classified None. for human [proprietary Fatty amines]. Non-mutagenic for bacteria and/or yeast. [proprietary Fatty amines].

**Special Remarks on Chronic Effects on Humans**

**proprietary Fatty amines:** 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.

**Acute Effects Eyes**

Corrosive to the eyes.

**Section 12. Ecological Information****Ecotoxicity**

| Ingredient Name or Product name | Species  | Period     | Result           |
|---------------------------------|--|------------|------------------|
| proprietary Fatty polyamines 1  | Fish (LC50)  | 96 hour(s) | 0.1 to 0.15 mg/l |
| proprietary Fatty amines        | 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**

62% @ 28 day(s) CBT based on data for: (similar material); 72% @ 42 day(s) CBT based on data for: (similar material)

**Biodegradable/OECD**

Readily biodegradable.

**Products of Degradation**




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

**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   |
|---------------------------|-----------|---|--------|---------------|--|--|
| <b>DOT Classification</b> | UN2735    | Amines, liquid, corrosive, n.o.s. (Fatty acid derived amines) | 8<br>- | III           |  | -  |
| <b>TDG Classification</b> | UN2735    | AMINES, LIQUID, CORROSIVE, N.O.S. (Fatty acid derived amines) | 8<br>- | III           |  | <b>Special Provisions</b><br><b>Classified in Accordance with UN Recommendations</b> |
| <b>IMDG Class</b>         | UN2735    | AMINES, LIQUID, CORROSIVE, N.O.S. (Fatty acid derived amines) | 8<br>- | III           |  | -  |

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|                       |        |   |   |     |  |   |
|-----------------------|--------|---|---|-----|--|---|
| <b>IATA-DGR Class</b> | 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.  
 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: REDICOTE® E-4819  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: REDICOTE® E-4819: 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: proprietary Fatty polyamines 1; proprietary Fatty amines; proprietary Fatty polyamines 2

| European Union | Component                      | EC Number   | EC Status   | EC Annex    |
|----------------|--------------------------------|-------------|-------------|-------------|
|                | proprietary Fatty polyamines 1 | proprietary | proprietary | proprietary |
|                | proprietary Fatty amines       | proprietary | proprietary | proprietary |
|                | proprietary Fatty polyamines 2 | proprietary | proprietary | proprietary |

**Other International Lists** Australia (NICNAS): proprietary Fatty polyamines 1; proprietary Fatty amines; proprietary Fatty polyamines 2  
 Japan (MITI): proprietary Fatty amines  
 Korea (TCCL): proprietary Fatty polyamines 1; proprietary Fatty amines  
 Philippines (RA6969): proprietary Fatty polyamines 1; proprietary Fatty amines

## 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** Redicote® 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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|                                 |                         |                     |                        |
|---------------------------------|-------------------------|---------------------|------------------------|
| <b>Validation Date</b>          | <b>2/13/2004.</b>       | <b>Validated by</b> | <b>Gabrielle Brite</b> |
| <b>Previous Validation Date</b> | No Previous Validation. | <b>Print Date</b>   | 2/13/2004.             |
|                                 |                         | <b>Phone Number</b> | <b>312-544-7038</b>    |

***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.