



Material Safety Data Sheet

PSC-AGA-400ME

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|---------------------|---|---|
| HEALTH | * | 2 |
| FLAMMABILITY | | 1 |
| PHYSICAL HAZARD | | 0 |
| PERSONAL PROTECTION | | |

1. Product and Company Identification

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| Material name | PSC-AGA-400ME |
| Patent Number | Not available |
| Revision date | April-04-2011 |
| Version No. | 4 |
| CAS # | Mixture |
| Product use | Acid Gelling Agent/Friction Reducer |
| Manufacturer information | Clearwater™ International L.L.C. 4420 South Flores Road Elmendorf, TX 78112 US CHEMTREC 1-800-424-9300/703-527-3887 |
| Emergency | CHEMTREC 1-800-424-9300/703-527-3887 |
| Supplier information | Producers Service Corp. 109 South Graham St. Zanesville, OH 43701 US |
| Supplier emergency telephone number(s) | 24hr customer Service 740-454-6253 |

2. Hazards Identification

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| Emergency overview | WARNING Harmful by inhalation and if swallowed. May cause breathing disorders and lung damage. May cause irritation of respiratory tract. Contact with skin may cause irritation. Contact will irritate or burn eyes. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |
| OSHA regulatory status | This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication). |
| Potential health effects | |
| Routes of exposure | Inhalation. |
| Eyes | Do not get this material in contact with eyes. Contact will irritate or burn eyes. |
| Skin | Do not get this material in contact with skin. Irritating to skin. |
| Inhalation | Do not breathe gas/fumes/vapor/spray. Harmful if inhaled. |
| Ingestion | Do not ingest. May be harmful if swallowed. Irritating to mouth, throat, and stomach. |
| Potential environmental effects | May cause long-term adverse effects in the environment. |



3. Composition / Information on Ingredients

| Components | CAS # | Percent |
|--|------------|---------|
| Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide | 69418-26-4 | 40 - 70 |

4. First Aid Measures

First aid procedures

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| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately. |
| Skin contact | Wash off immediately with plenty of water. Wash clothing separately before reuse. Get medical attention if irritation develops or persists. |
| Inhalation | Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Get medical attention immediately. |
| Ingestion | Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. |

Notes to physician

Symptoms may be delayed.

General advice

Immediate medical attention is required.

5. Fire Fighting Measures

Flammable properties

None known.

Extinguishing media

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| Suitable extinguishing media | Dry chemical, CO ₂ , water spray or regular foam. Water. |
| Unsuitable extinguishing media | Do not use a solid water stream as it may scatter and spread fire. |

Protection of firefighters

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| Protective equipment and precautions for firefighters | Do not scatter spilled material with high pressure water streams. Cool containers with flooding quantities of water until well after fire is out. |
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6. Accidental Release Measures

Personal precautions

Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away. Stay upwind. Keep out of low areas.

Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Should not be released into the environment. Forms smooth, slippery surfaces on floors, posing an accident risk. Dike far ahead of liquid spill for later disposal. After removal flush contaminated area thoroughly with water. Clean contaminated surface thoroughly.

Other information

Clean up in accordance with all applicable regulations.



7. Handling and Storage

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| Handling | Do not handle or store near an open flame, heat or other sources of ignition. Do not breathe vapors or spray mist. Use only with adequate ventilation. Avoid release to the environment. Wash thoroughly after handling. Use this product with adequate ventilation. |
| Storage | Keep locked-up. Keep container tightly closed. Store in cool place. Keep in a well-ventilated place. Refrigeration recommended. |

8. Exposure Controls / Personal Protection

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| Engineering controls | Ensure adequate ventilation, especially in confined areas. |
| Personal protective equipment | |
| Eye / face protection | Wear chemical goggles. |
| Skin protection | Protective gloves. Impervious gloves. |
| Respiratory protection | A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. |
| General hygiene considerations | When using do not smoke. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice. |

9. Physical & Chemical Properties

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|---|------------------------------------|
| Appearance | Liquid. |
| Color | Colorless. |
| Odor | Oily. |
| Odor threshold | Not available |
| Physical state | Liquid. |
| Form | Liquid. |
| pH | 4 |
| Melting point | 39.2 °F (3.81 °C) estimated |
| Freezing point | Not available |
| Boiling point | 143.6 °F (62.33 °C) estimated |
| Flash point | 201 - 250 °F (93.9 - 121.1 °C) |
| Evaporation rate | Not available |
| Flammability | Not available. |
| Flammability limits in air, upper, % by volume | Not available |
| Flammability limits in air, lower, % by volume | Not available |
| Vapor pressure | Not available |
| Vapor density | Not available |
| Specific gravity | 1 - 1.05 |
| Relative density | 1.0249 g/cm ³ estimated |
| Solubility (water) | dispersible |
| Partition coefficient (n-octanol/water) | Not available |



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| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available |
| VOC | 25 % estimated |
| Percent volatile | 23.9 % |

10. Chemical Stability & Reactivity Information

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| Chemical stability | Stable at normal conditions. |
| Conditions to avoid | Heat, flames and sparks. |
| Hazardous decomposition products | Carbon oxides. |

11. Toxicological Information

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| Acute effects | Acute LD50: 2000 - 3000 mg/kg, Rat, Oral Acute LD50: 8000 mg/kg estimated, Rat, Dermal Acute LC50: 19 mg/l/4h estimated, Rat, Inhalation |
| Sensitization | Not expected to be hazardous by OSHA criteria. |
| Chronic effects | Prolonged exposure may cause chronic effects. |
| Carcinogenicity | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| Neurological effects | Excessive exposure may cause central nervous system effects such as dizziness, drowsiness or headaches. |

12. Ecological Information

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| Ecotoxicity | LC50 73.3 mg/L estimated, Fish, 96.00 Hours, Components of this product have been identified as having potential environmental concerns. |
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13. Disposal Considerations

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| Disposal instructions | Dispose of contents/container in accordance with local/regional/national/international regulations. |
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14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as hazardous goods.

Department of Transportation (DOT) Requirements

Bulk

Not regulated as hazardous goods.

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

Canadian Transportation of Dangerous Goods (TDG) Requirements

Not regulated as hazardous goods.

Canadian Transportation of Dangerous Goods (TDG) Requirements

Not regulated as dangerous goods.



IMDG

Not regulated as hazardous goods.

IMDG

Not regulated as dangerous goods.

IATA

Not regulated as hazardous goods.

IATA

Not regulated as dangerous goods.

15. Regulatory Information

Labelling

Contains Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide

US federal regulations All components are on the U.S. EPA TSCA Inventory List.

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

Adipic acid: 5000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of New and Existing Chemicals (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

International regulations Not on the Chemical Weapons Convention (CWC) Toxic Chemicals and Precursors List



State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

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| 16. Other Information |
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HMIS® ratings

Health: 2*
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 1
Instability: 0

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Disclaimer

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Issue date

April-04-2011

MSDS sections updated

Product and Company Identification: Alternate Trade Names
Hazards Identification: Emergency overview
Hazards Identification: Hazard statements
Exposure Controls / Personal Protection: Respiratory protection
Physical & Chemical Properties: Odor
Chemical Stability & Reactivity Information: Incompatibility
Chemical Stability & Reactivity Information: Hazardous decomposition products
Toxicological Information: Neurotoxicity
Toxicological Information: Chronic toxicity
Other Information: MSDS footer disclaimer