

AF CEMENT

1. Product And Company Identification

Supplier

Forbo Siegling, LLC
12201 Vanstory Dr.
Huntersville, NC 28078-8395

Company Contact: Mr. Jay Leighton
Telephone Number: 704-948-0800

Supplier Emergency Contacts & Phone Number

CHEMTREC: (800) 424-9300

Issue Date: 02/01/2007

Product Name: AF CEMENT
CAS Number: Not Avail.
Chemical Formula: Mixture
MSDS Number: 420

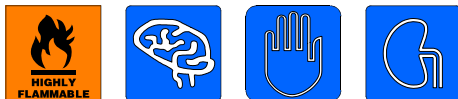
2. Composition/Information On Ingredients

Ingredient Name	CAS Number		Percent Of Total Weight
ETHYL ACETATE	141-78-6	>	30
METHYL ETHYL KETONE	78-93-3	>	30

EMERGENCY OVERVIEW

Highly Flammable. Harmful if inhaled or swallowed. CONTACT YOUR LOCAL POISON CONTROL CENTER IF SWALLOWED! May cause dizziness or unconsciousness if inhaled. Contact with eyes or skin causes irritation. Fire may produce irritating poisonous gases.

Hazards Identification (Pictograms)



3. Hazards Identification

Primary Routes(s) Of Entry

Skin, inhalation and eyes.

Eye Hazards

Contact will cause irritation.

Skin Hazards

Repeated prolonged contact may cause defatting of skin and dermatitis. Contact may cause reddening and irritation.

Ingestion Hazards

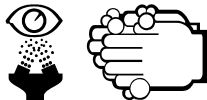
May cause vomiting, headache, nausea, dizziness, unconsciousness and irritation of mucous membranes.

Inhalation Hazards

Inhalation may cause upper respiratory irritation, headache, nausea, dizziness, and unconsciousness in high concentrations. Overexposure may effect the kidneys and central nervous system.

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First Aid (Pictograms)



4. First Aid Measures

Eye

If contact occurs flush eyes with water for 15 minutes; get medical attention.

Skin

Wash skin with soap/water. Moisturizing creams may be used as an aid to prevent drying & cracking of skin.

Ingestion

CALL YOUR LOCAL POISON CONTROL CENTER IMMEDIATELY FOR ADVICE.

Keep victim calm. Administer CPR if necessary taking caution not to become contaminated while administering artificial respiration.

Inhalation

Remove inhalation victim to fresh air give CPR or artificial respiration if breathing stops. Consult physician.

Note To Physician

SEE GENERAL POISONING: Prevention of absorption (oral ingestion): A) Emesis- although vomiting produces only 30% mean recovery of ingested dose, it is still probably a useful procedure. B) lavage /PRC- with tap water for children saline for adults...C) charcoal...many agents are absorbed on activated charcoal.../PRC 30 g in 3-4 ounces water for children, 100 g in 8-10 ounces of water for adults D) Cathartics....Dose: sodium or magnesium sulfate 250 mg/kg for children, orally; 20-30 g/dose to 100g total adults. (3)

Fire Fighting (Pictograms)



5. Fire Fighting Measures

Flash Point: 23 °F -5 °C

Autoignition Point: 941 °F 505 °C

Flammability Class: IB

Lower Explosive Limit: 1.8

Upper Explosive Limit: 11.5

Fire And Explosion Hazards

Highly Flammable! Keep away from open flame, heat sources and fire. Vapors may form flammable/explosive mixtures with air in confined areas with poor ventilation. Do not cut open or apply heat sources to containers. Closed containers may rupture and explode when exposed to extreme heat.

Extinguishing Media

Carbon dioxide, AFFF/ATC Foam, alcohol type foam, dry chemical. Water may be ineffective. However, water may be used to cool fire exposed containers.

Fire Fighting Instructions

Always wear fire fighting protective gear and respiratory protection when fighting fires. Water may be ineffective and may spread liquid. However, water fog may be used to cool fire exposed containers.

6. Accidental Release Measures

1) Remove/extinguish all ignition sources such as open flames. 2) Ventilate area of spill or leak. 3) For small quantities absorb on paper towels or similar material. Allow to evaporate in a safe place such as a fume hood. Never dispose of with trash since spontaneous combustion may occur! 4) Large quantity: dike area with suitable absorbent such as

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6. Accidental Release Measures - Continued

vermiculite or kitty litter to prevent spread of material. If available use alcohol type foam to cover spill in order to prevent ignition. Do not allow material to enter confined areas such as pits or sewers since vapors may form explosive mixture with air. Use more absorbent material to soak up material and place in drums or other container for disposal. Spilled product must be disposed of as an ignitable characteristics (EPA) hazardous waste via incineration or other acceptable method.

NOTE: ALWAYS WEAR PROTECTIVE EQUIPMENT SUCH AS ORGANIC VAPOR RESPIRATOR GLOVES AND EYE PROTECTION WHEN HANDLING CONTAMINATED MATERIALS!

7. Handling And Storage

Handling And Storage Precautions

Store away from ignition sources. Keep containers closed when not in use.

Protective Clothing (Pictograms)



8. Exposure Controls/Personal Protection

Engineering Controls

If large quantities are used, local exhaust ventilation should be used. Electrical equipment must conform to NFPA/NEC Standards Article 500 for use in potentially flammable atmospheres or hazardous locations.

Eye/Face Protection

Use safety glasses, goggles or face shield to prevent accidental eye contact.

Skin Protection

Nitrile or butyl rubber gloves may be used if repeated contact will occur.

Respiratory Protection

Respiratory protection should not be necessary under normal conditions of anticipated use of this product, in small quantities. If necessary, use chemical cartridge respirator equipped with organic vapor cartridges for levels up to 1000 ppm; gas mask with organic vapor cannister. For higher levels type-C supplied air or self contained breathing apparatus may be used. Only NIOSH approved respirators should be used.

Ingredient(s) - Exposure Limits

ETHYL ACETATE

ACGIH TLV-TWA: 400 ppm

OSHA PEL-TWA: 400 ppm

METHYL ETHYL KETONE

ACGIH TLV-TWA: 200 ppm

ACGIH TLV-STEL: 300 ppm

OSHA PEL-TWA: 200 ppm

9. Physical And Chemical Properties

Appearance

Transparent clear or slightly yellowish liquid.

Odor

Characteristic fruity, ether-like odor similar to pineapple or bananas.

Chemical Type: Mixture

Boiling Point: 171 °F 77 °C

Specific Gravity: 0.9 @ 68F / 20 C

Percent Volatiles: 76.0

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9. Physical And Chemical Properties - Continued

Vapor Pressure: 350 mbar @50C
Solubility: Insoluble

10. Stability And Reactivity

Stability: Stable
Hazardous Polymerization: Will Not Occur

Incompatible Materials

Ethyl Acetate can react vigorously with chlorosulfonic acid, sulfuric acid (oleum) and potassium-tert-butoxide. Is also incompatible with nitrites, strong oxidizers, strong alkalies and strong acids.

Hazardous Decomposition Products

May emit toxic combustion products of unknown identity.

11. Toxicological Information

Eye Effects

Ethyl Acetate may cause eye irritation at levels greater than or equal to 400 ppm. Human ocular irritant dose: 400 ppm.

Acute Oral Effects

LD50 (RAT)-oral: 11300 mg/kg (ethyl acetate); LD50 (RABBIT)-oral: 4935 mg/kg (ethyl acetate)

Acute Inhalation Effects

LC50 (RAT)-inhalation: 1600 ppm/8hr. (ethyl acetate)

Miscellaneous Toxicological Information

THIS MATERIAL NOR ANY COMPONENT CONSTITUTING $\geq 0.1\%$ IS LISTED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE NATIONAL TOXICOLOGY PROGRAM (NTP) OR THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) AS A SUSPECT OR KNOWN HUMAN CARCINOGEN.

NOTE: The health effects of this product as noted above are based on extrapolations from the available data for the pure components. To the best of our knowledge, adverse health effects have not been determined for the final AF Cement product formulation as a whole. Under the normal anticipated conditions of use of this product (in small quantities and for brief and intermittent exposures) it is believed that the likelihood of experiencing adverse health effects is small.

Ethyl Acetate is irritating to mucous surfaces, particularly the eyes, gums and respiratory passages. IDLH = 10,000 ppm.

12. Ecological Information

Other Environmental Information

Water Danger Class 3 (German regulation): extremely hazardous to water. Do not allow product to reach groundwater, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak on to the ground.

13. Disposal Considerations

Flash point is below 140°F. Spilled material should be disposed of as an ignitable hazardous waste (EPA-RCRA), via incineration or solidification and disposal in an approved secure landfill. Do not or cut open the container.

RCRA Information

Ethyl Acetate is a RCRA hazardous waste U112 (40 CFR 261.33) and F003 (40 CFR 261.31).

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14. Transport Information

Proper Shipping Name

ADHESIVES, containing a flammable liquid

Hazard Class

3 (Flammable Liquid), PG II

DOT Identification Number

UN1133

DOT Shipping Label

FLAMMABLE LIQUID

Packaging Exceptions

173.150

Packaging Requirements

173.173/.242

Additional Shipping Paper Description

Adhesives, containing a flammable liquid, 3, UN113, III (containing ethyl acetate and methyl ethyl ketone) International Air Transport Association (IATA) packing instruction Y309, (packing group III).

Meets the DOT limited quantity exception when the conditions of 49 CFR 173.150 are met.

Product shipped in tubes (40g) within cardboard boxes and glass bottles (400g) within expanded plastic boxes.

Germany: "ArbStoffV" danger symbol "F".

DOT (Pictograms)



TDG - Canada (Pictograms)



15. Regulatory Information

SARA Hazard Classes

Acute Health Hazard
Chronic Health Hazard
Fire Hazard

SARA Title III - Section 313 Supplier Notification

This product contains the following toxic chemicals that are subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372.

METHYL ETHYL KETONE (78-93-3) >30 %

This information must be included on all MSDSs that are copied and distributed for this material.

Ingredient(s) - U.S. Regulatory Information

METHYL ETHYL KETONE
SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

State Regulations

"Universal" Labeling

Ethyl Acetate 141-78-6

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15. Regulatory Information - Continued

State Regulations - Continued

Methyl Ethyl Ketone 78-93-3
Nitrile butyl rubber

Ingredient(s) - State Regulations

ETHYL ACETATE
New Jersey - Workplace Hazard
New Jersey - Special Hazard
Pennsylvania - Workplace Hazard
Massachusetts - Hazardous Substance
New York City - Hazardous Substance
METHYL ETHYL KETONE
New Jersey - Workplace Hazard
New Jersey - Environmental Hazard
New Jersey - Special Hazard
Pennsylvania - Workplace Hazard
Pennsylvania - Environmental Hazard
Massachusetts - Hazardous Substance
New York City - Hazardous Substance

Canadian Regulatory Information

Class B - Combustible or Flammable Material

Ingredient(s) - Canadian Regulatory Information

ETHYL ACETATE
WHMIS - Ingredient Disclosure List
METHYL ETHYL KETONE
WHMIS - Ingredient Disclosure List

European Union (EU) Regulatory Information

European Union Risk Phrases -
R11 - Highly Flammable

European Union Safety Phrases -
S16 - Keep away from sources of ignition - no smoking
S24 - Avoid contact with skin
S51 - Use only in well ventilated areas

WHMIS - Canada (Pictograms)



DSCL - Europe (Pictograms)



16. Other Information

NFPA Rating

Health: 3

Fire: 3

Reactivity: 0

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16. Other Information - Continued

HMIS Rating

Health: 2

Fire: 3

Reactivity: 1

Personal Protection: B

Revision/Preparer Information

This MSDS Supersedes A Previous MSDS Dated: 11/18/2003

Reference Documentation

Primary references used in the creation of this document:

- (1) Fenaroli HDBK Flavor Inged.2nd Ed. vol 2, 1975, p.157
- (2) NIOSH Registry Of Effects Of Chemical Substances (RTECS)
- (3) Rumack Poison index 1975-present
- (4) Guide to Occupational Exposure Values - 2006, ACGIH.
- (5) 29 CFR 1910 OSHA General industry standards 1910.1000 et.seq.
- (6) Patty's Industrial Hygiene And Toxicology 3rd. Ed. (1978) John Wiley & Sons, New York
- (7) 10th Annual Report On Carcinogens
- (8) Documentation Of The Threshold Limit Values And Biological Exposure Indices, 1996, ACGIH
- (9) Siegling MSDS for Extremultus AF Cement, Hannover, Germany; 7/30/86.
- (10) Toxnet Hazardous Substance Data Bank (HSDB).

NOTE: Data marked with an asterisk (*) are for the primary component of this product.

Other Information

Glossary -

ACGIH = American Conference of Governmental Industrial Hygienists

API = American Petroleum Institute

DOT = U.S. Department of Transportation

EPA = U.S. Environmental Protection Agency

IARC = International Agency For Research On Cancer

MSHA = Mine Safety and Health Administration

NFPA = National Fire Protection Association

NIOSH = National Institute of Occupational Safety and Health

NTP = National Toxicology Program

OSHA = U.S. Occupational Safety & Health Administration

PEL = Permissible Exposure Limit (OSHA)

REL = Recommended Exposure Limit (NIOSH)

STEL = Short-Term Exposure Limit

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average (8 hr.)

WHMIS = Canadian Workplace Hazardous Materials Information System

AP = approximately < = Less than > = Greater than

N/A = Not Applicable NE = Not Established ND = Not Determined

Disclaimer

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

Siegling America, Inc.