

**K11 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: K11 CEMENT

CAS Number: Not Avail.

Chemical Family: Solvent

Chemical Formula: Mixture

MSDS Number: 779

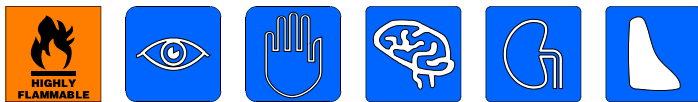
**2. Composition/Information On Ingredients**

| Ingredient Name     | CAS Number | Percent Of Total Weight |
|---------------------|------------|-------------------------|
| ACETONE             | 67-64-1    | 56.4                    |
| METHYL ETHYL KETONE | 78-93-3    | 11                      |
| POLYURETHANE        | 9009-54-5  | 23.6                    |
| TETRAHYDROFURAN     | 109-99-9   | 9                       |

**EMERGENCY OVERVIEW**

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

**Hazards Identification (Pictograms)**



**3. Hazards Identification**

**Eye Hazards**

Contact with vapor may cause eye irritation and possibly redness of the cornea and eyelids, hardening of the skin, corneal opacity and edema. Liquid contact with the eyes may cause moderate to severe irritation as well as temporary clouding of the cornea.

**Skin Hazards**

Direct liquid contact or concentrated vapor can cause drying or irritation of the skin. Absorption through the skin is possible, however, toxicity via this route is low.

Prolonged or repeated contact with liquid or concentrated vapor may cause defatting of the skin and dermatitis.

**Ingestion Hazards**

Ingestion of this product may cause irritation of the throat, esophagus and stomach. Large amounts may cause symptoms similar to inhalation (headache, weakness, nausea, drowsiness, etc.). Ingestion may effect the liver, kidneys, and central nervous system.

**Inhalation Hazards**

Short term inhalation may cause headache and irritation of the nose and throat. Inhalation of certain components

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### 3. Hazards Identification - Continued

#### Inhalation Hazards - Continued

of this product may cause an anesthetic effect, decreased blood pressure, strong respiratory stimulation, weakness, drowsiness, nausea, a feeling of drunkenness and vomiting. Numbness of fingers and arms, numbness and weakness in legs, light-headedness, dizziness, incoordination, unconsciousness, collapse, coma and death may also result from excessive inhalation of vapors. Inhalation may effect the liver, kidneys, and central nervous system.

#### First Aid (Pictograms)



### 4. First Aid Measures

#### Eye

Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes, by the clock, holding the eyelid(s) open. Obtain medical attention immediately.

#### Skin

As quickly as possible, flush contaminated area with lukewarm, gently running water for at least 20 minutes, by the clock. Under running water, remove contaminated clothing, shoes, and leather goods. If irritation persists, obtain medical attention immediately. Completely decontaminate clothing before re-use or discard.

#### Ingestion

Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink water to dilute material in stomach. If vomiting occurs naturally, rinse mouth and repeat administration of water. If breathing has stopped, trained personnel should begin artificial respiration or, if the heart has stopped, cardiopulmonary resuscitation immediately. Obtain medical attention immediately.

#### Inhalation

Remove source of contamination or move victim to fresh air. If breathing has stopped, properly trained personnel should begin artificial respiration or cardiopulmonary resuscitation immediately. Obtain medical attention immediately.

#### Fire Fighting (Pictograms)



### 5. Fire Fighting Measures

**Flash Point:** 0 °F -18 °C

**Autoignition Point:** >200 °F >93 °C

**Flammability Class:** IB

**Lower Explosive Limit:** 1.5

**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.

Vapor is heavier than air and may travel a considerable distance to a source of ignition and flash-back. Vapor may accumulate in tanks, along the floor or in low spots.

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### 5. Fire Fighting Measures - Continued

#### Extinguishing Media

Dry chemical, foam, carbon dioxide.

#### Fire Fighting Instructions

Water can be used to keep fire-exposed containers cool. However, caution should be used because water may cause the fire to spread.

### 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 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 containers 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

Keep container tightly sealed in a well-ventilated, cool and dry room. Solvent-resistant flooring. Keep away from incendiary or explosive substances. Provide eye wash bottle.

Avoid contact with eyes and skin. Do not breathe fumes. Protective gloves recommended. Keep away from food, drink and feedstuffs. Observe relevant employee restrictions.

Keep away from sources of ignition and take measures against electrostatic build-up.

#### 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 in small quantities. If necessary, use chemical cartridge respirator equipped with organic vapor cartridges for levels up to 1000 ppm. Only NIOSH-approved respirators should be used.

#### Ingredient(s) - Exposure Limits

ACETONE

ACGIH TLV-TWA: 500 ppm

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### 8. Exposure Controls/Personal Protection - Continued

#### Ingredient(s) - Exposure Limits - Continued

ACGIH TLV-STEL: 750 ppm  
 OSHA PEL-TWA: 1,000 ppm  
 METHYL ETHYL KETONE  
 ACGIH TLV-TWA: 200 ppm  
 ACGIH TLV-STEL: 300 ppm  
 OSHA PEL-TWA: 200 ppm  
 POLYURETHANE  
 No Exposure Limits Established By ACGIH or OSHA  
 TETRAHYDROFURAN  
 ACGIH TLV-TWA: 50 ppm  
 ACGIH TLV-STEL: 100 ppm  
 OSHA PEL-TWA: 200 ppm

### 9. Physical And Chemical Properties

#### Appearance

An opaque yellowish liquid

#### Odor

Solvent odor

**Chemical Type:** Mixture

**Boiling Point:** 133 °F 56.2 °C

**Specific Gravity:** 0.907

**Percent Volatiles:** 76.4

**Vapor Pressure:** 240 mbar @ 67F/20C

**Solubility:** Insoluble

### 10. Stability And Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will Not Occur

#### Incompatible Materials

Contact with oxidizers or chlorinated solvent/alkali mixtures may cause fire or vigorous reaction.

#### Hazardous Decomposition Products

May emit toxic combustion products of unknown identity.

### 11. Toxicological Information

#### Eye Effects

Methyl ethyl ketone, tetrahydrofuran and acetone will irritate and may damage eye tissue. Vapors of these ingredients may be irritating.

#### Skin Effects

The ingredients of this product will irritate the skin upon contact and may be poisonous if absorbed through the skin.

#### Acute Oral Effects

INGESTION OF TETRAHYDROFURAN IS TOXIC OR FATAL! Acetone and methyl ethyl ketone will cause irritation upon ingestion.

#### Acute Inhalation Effects

Repeated inhalation of certain ingredients in this product over a period of years has been reported to cause visual field changes, nose and throat irritation, dizziness and loss of strength. Reversible liver damage is also possible at high doses.

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### 11. Toxicological Information - Continued

#### **Miscellaneous Toxicological Information**

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 K11 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.

#### **Ingredient(s) - Carcinogenicity**

TETRAHYDROFURAN

NTP - Listed On The National Toxicology Program

### 12. Ecological Information

Water hazard class 1 (German regulation): slightly hazardous for water. Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.

### 13. Disposal Considerations

Flash point is below 140 deg. F. Spilled material should be disposed of as an ignitable hazardous waste (EPA-RCRA), D001 Ignitable waste.

### 14. Transport Information

#### **Proper Shipping Name**

ADHESIVES, containing a flammable liquid

#### **Hazard Class**

3 (Flammable Liquid)

#### **DOT Identification Number**

UN1133

#### **DOT Shipping Label**

FLAMMABLE LIQUID

#### **Packaging Exceptions**

173.150

#### **Packaging Requirements**

173.201

#### **Additional Shipping Paper Description**

Adhesives, containing a flammable liquid, 3, UN1133, III, (containing acetone and methyl ethyl ketone) International Air Transport Association (IATA) packing instruction Y309, (packing group III).

Germany: "ArbStoffV" danger symbol "F".

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

#### **DOT (Pictograms)**



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**14. Transport Information - Continued**

**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) 11 %

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:

| CONTENTS            |           |
|---------------------|-----------|
| Acetone             | 67-64-1   |
| Methyl Ethyl Ketone | 78-93-3   |
| Tetrahydrofuran     | 109-99-9  |
| Polyurethane        | 9009-54-5 |

**Ingredient(s) - State Regulations**

- ACETONE
- New Jersey - Workplace 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
- TETRAHYDROFURAN
- New Jersey - Workplace Hazard
  - New Jersey - Special Hazard
  - Pennsylvania - Workplace Hazard
  - Massachusetts - Hazardous Substance
  - New York City - Hazardous Substance

**Canadian Regulatory Information**

Class B - Combustible or Flammable Material

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### 15. Regulatory Information - Continued

#### Ingredient(s) - Canadian Regulatory Information

ACETONE

WHMIS - Ingredient Disclosure List

METHYL ETHYL KETONE

WHMIS - Ingredient Disclosure List

TETRAHYDROFURAN

WHMIS - Ingredient Disclosure List

#### European Union (EU) Regulatory Information

European Union Risk Phrases -

R11 - Highly Flammable

R22 - Harmful if swallowed

R36 - Irritating to eyes

R38 - Irritating to skin

European Union Safety Phrases -

S9 - Keep container in a well-ventilated place

S16 - Keep away from sources of ignition - no smoking

S25 - Avoid contact with eyes

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S51 - Use only in well ventilated areas

#### WHMIS - Canada (Pictograms)



#### DSCL - Europe (Pictograms)



### 16. Other Information

#### NFPA Rating

Health: 3

Fire: 3

Reactivity: 0

#### 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) NIOSH Registry Of Effects Of Chemical Substances (RTECS); U.S. Dept. HEW RTECS# AH5425000 (ethyl acetate), RTECS# AL3150000 (acetone).
- (2) Rumack Poison index 1975-present.
- (3) Guide to Occupational Exposure Values - 2006, ACGIH.
- (4) 29 CFR 1910 OSHA General industry standards 1910.1000 et.seq.

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### 16. Other Information - Continued

#### Reference Documentation - Continued

- (5) Patty's Industrial Hygiene And Toxicology 3rd. Ed. (1978) John Wiley & Sons, New York.
- (6) 10th Annual Report On Carcinogens
- (7) Documentation Of The Threshold Limit Values And Biological Exposure Indices, 1996, ACGIH Cincinnati OH.
- (8) Siegling Safety Data Sheet for K10 Cement, 01/90, Hannover, Germany.
- (9) IARC Monographs Supplement 7.
- (10) CCINFO CHEMINFO Database.

#### Other Information

Glossary -

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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**

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Siegling America, Inc.