



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name AKWASEAL™ C
Version # 05
Revision date 29-February-2012
Chemical description Liquid
CAS # Mixture
Manufacturer information CETCO
Building Materials Group
2870 Forbs Avenue
Hoffman Estates, IL 60192 United States
safety.data@amcol.com
<http://www.cetco.com/>
General Information (800) 527-9948
CHEMTREC® (800) 424-9300

2. Hazards Identification

Potential health effects

Routes of exposure Inhalation. Skin contact.
Eyes Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.
Skin Moderate skin irritation. Prolonged or repeated skin contact may cause skin irritation or allergic skin sensitization reaction.
Inhalation Inhalation of vapors or mists of the product may be irritating to the respiratory system. May cause sensitization by inhalation.
Ingestion Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

3. Composition / Information on Ingredients

Components	CAS #	Percent
POLYMETHYLENE POLYPHENYLENE ISOCYANATE	9016-87-9	40.90909
TOLUENE DIISOCYANATE	26471-62-5	9.090909

4. First Aid Measures

First aid procedures

Eye contact Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
Skin contact Wash affected area with mild soap and water. Remove and isolate contaminated clothing and shoes. Launder contaminated clothing before reuse. Get medical attention if irritation develops or persists.
Inhalation If inhalation of gas/fume/vapor/dust/mist from the material is excessive (air concentration is greater than the TLV or health effects are noticed), immediately remove the affected person(s) to fresh air. Get medical attention immediately. Keep victim warm. If the affected person is not breathing, apply artificial respiration. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Ingestion If swallowed, seek medical advice immediately and show this container or label. Have victim rinse mouth thoroughly with water. If swallowed, do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Aspiration may cause pulmonary edema and pneumonitis.

Notes to physician Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Keep under medical supervision for at least 48 hours.

General advice If you feel unwell, seek medical advice (show the label where possible). Symptoms of poisoning may only appear several hours later. Keep victim under observation.

5. Fire Fighting Measures

Flammable properties	Container may explode in heat of fire.
Extinguishing media	
Suitable extinguishing media	Dry chemical, foam, carbon dioxide, water fog.
Protection of firefighters	
Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Fire fighting equipment/instructions	Containers can build up pressure if exposed to heat (fire). Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do it without risk. Dike fire control water for later disposal.
Specific methods	Cool containers / tanks with water spray. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.
Hazardous combustion products	Irritating and toxic gases or fumes may be released during a fire.

6. Accidental Release Measures

Personal precautions	Ensure adequate ventilation. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions	Do not flush into surface water or sanitary sewer system. Do not contaminate water. Runoff from fire control or dilution water may cause pollution.
Methods for containment	Stop leak if you can do so 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. Ventilate the contaminated area. Clean contaminated surface thoroughly. After removal flush contaminated area thoroughly with water. Wear appropriate protective equipment and clothing during clean-up.

7. Handling and Storage

Handling	Use this product with adequate ventilation. Keep this product from heat, sparks, or open flame. When using do not eat or drink.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep at temperatures between 10 and 48°C. Never allow product to get in contact with water during storage. Purge open drums with nitrogen before resealing. Keep out of the reach of children. Keep this material away from food, drink and animal feed.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
TOLUENE DIISOCYANATE (26471-62-5)	STEL	0.02 ppm
	TWA	0.005 ppm

Engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Personal protective equipment	
Eye / face protection	Wear safety glasses with side shields (or goggles) and a face shield.
Skin protection	Where contact is likely, wear chemical-resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield. Recommended gloves include rubber, neoprene, nitrile or viton.
Respiratory protection	If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.
General hygiene considerations	When using, do not eat, drink or smoke. Avoid contact with skin. Avoid contact with eyes. Keep away from food and drink. Avoid contact with the skin and the eyes. Handle in accordance with good industrial hygiene and safety practice. When using do not smoke. When using do not eat or drink.

9. Physical & Chemical Properties

Appearance	Not available.
Physical state	Liquid.
Form	Liquid.
Color	Brown.
Odor	Musty.
Odor threshold	Not available.
pH	Not available.
Vapor pressure	0.030660003 hPa estimated
Vapor density	Not available.
Boiling point	483.8 °F (251 °C) estimated
Melting point/Freezing point	51.8 °F (11 °C) estimated
Solubility (water)	Insoluble
Specific gravity	1.12 - 1.14 1.203674913 estimated
Relative density	Not available.
Flash point	391.9 °F (199.949490759 °C) estimated
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
VOC	9.090909 % estimated
Viscosity	700 - 900 cps at 77 F
Percent volatile	9.090909 % estimated
Other data	
Density	1.203554546 g/cm3 estimated
Flammability class	Combustible IIIB estimated
Flash point class	Combustible IIIB

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Exposure to moisture. Direct sources of heat.
Incompatible materials	Acids. Alcohols. Amides. Amines. Ammonia. Caustics. Glycol. Water.
Hazardous decomposition products	Nitrogen oxides (NOx). Carbon monoxide.
Possibility of hazardous reactions	Hazardous polymerization can occur with elevated temperatures.

11. Toxicological Information

Toxicological data

Product	Test Results
AKWASEAL™ C (Mixture)	Acute Dermal LD50 Rabbit: 19007 mg/kg Acute Inhalation LC50 Guinea pig: 994.401 mg/l estimated Acute Inhalation LC50 Mouse: 760.1008 mg/l estimated Acute Inhalation LC50 Rabbit: 0.8615 mg/l estimated Acute Inhalation LC50 Rat: 1.099 mg/l/4h Acute Inhalation LC50 Rat: 0.6266 mg/l estimated Acute Oral LD50 Mouse: 21450.0215 mg/kg estimated Acute Oral LD50 Rat: 26275.9473 mg/kg estimated

Components

Test Results

TOLUENE DIISOCYANATE (26471-62-5)	Acute Dermal LD50 Rabbit: 10000 mg/kg Acute Inhalation LC50 Guinea pig: 90.4 mg/l 4 Hours Acute Inhalation LC50 Mouse: 69.1 mg/l 4 Hours Acute Inhalation LC50 Rabbit: 0.0783 mg/l 4 Hours Acute Inhalation LC50 Rat: 0.1 mg/l/4h Acute Inhalation LC50 Rat: 0.057 mg/l 1 Hours Acute Oral LD50 Mouse: 1950 mg/kg Acute Oral LD50 Rat: 3360 mg/kg Acute Oral LD50 Rat: 3060 mg/kg
POLYMETHYLENE POLYPHENYLENE ISOCYANATE (9016-87-9)	Acute Dermal LD50 Rabbit: 9400.0001 mg/kg Acute Inhalation LC50 Rat: 490 mg/l/4h Acute Oral LD50 Rat: 49000 mg/kg

Sensitization

May cause sensitization by inhalation and skin contact.

Carcinogenicity

ACGIH Carcinogens

TOLUENE DIISOCYANATE (CAS 26471-62-5)

A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

POLYMETHYLENE POLYPHENYLENE ISOCYANATE
(CAS 9016-87-9)

3 Not classifiable as to carcinogenicity to humans.

TOLUENE DIISOCYANATE (CAS 26471-62-5)

2B Possibly carcinogenic to humans.

US NTP Report on Carcinogens: Anticipated carcinogen

TOLUENE DIISOCYANATE (CAS 26471-62-5)

Reasonably Anticipated to be a Human Carcinogen.

12. Ecological Information

Ecotoxicity

Components of this product have been identified as having potential environmental concerns.

Environmental effects

Based on the physical properties of this product, significant environmental persistence and bioaccumulation can be expected. Harmful to aquatic life.

Aquatic toxicity

May cause long-term adverse effects in the aquatic environment.

Persistence and degradability

Not available.

13. Disposal Considerations

Waste codes

US RCRA Hazardous Waste U List: Reference

TOLUENE DIISOCYANATE (CAS 26471-62-5)

U223

Disposal instructions

Dispose in accordance with all applicable regulations. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

14. Transport Information

DOT

Packages less than 83 lbs

Basic shipping requirements:

UN number	NA3082
Proper shipping name	Hazardous waste, liquid, n.o.s.
Hazard class	9
Packing group	III

Additional information:

Special provisions	IB3, T2, TP1
Packaging exceptions	155
Packaging non bulk	203
Packaging bulk	241

IATA

Basic shipping requirements:

Proper shipping name	Consumer commodity
Hazard class	9
UN number	8000
Additional information:	
ERG code	9L

IMDG

Not regulated as dangerous goods.



DOT



IATA

Packages less than 83
lbs

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2))

Not regulated

DEA Essential Chemical Code Number

Not regulated

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated

DEA Exempt Chemical Mixtures Code Number

Not regulated

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

POLYMETHYLENE POLYPHENYLENE ISOCYANATE 1.0 %
(CAS 9016-87-9)

TOLUENE DIISOCYANATE (CAS 26471-62-5) 0.1 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

POLYMETHYLENE POLYPHENYLENE ISOCYANATE Listed.
(CAS 9016-87-9)

TOLUENE DIISOCYANATE (CAS 26471-62-5) Listed.

CERCLA (Superfund) reportable quantity

TOLUENE DIISOCYANATE: 100.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - Yes
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Section 302 extremely hazardous substance	No
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Section 311 hazardous chemical	No
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Inventory status

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

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

State regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

TOLUENE DIISOCYANATE (CAS 26471-62-5) Listed: October 1, 1989 Carcinogenic.

US - New Jersey RTK - Substances: Listed substance

POLYMETHYLENE POLYPHENYLENE ISOCYANATE (CAS 9016-87-9) Listed.

TOLUENE DIISOCYANATE (CAS 26471-62-5) Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

TOLUENE DIISOCYANATE (CAS 26471-62-5) Listed.

16. Other Information

Further information This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

HMIS® ratings Health: 3*
Flammability: 1
Physical hazard: 2

NFPA ratings Health: 3
Flammability: 1
Instability: 0

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