



Safety Data Sheet
Akonaseal™ Polyurethane Self-Leveling
Smooth Sealant
© Akona Manufacturing LLC.
Version 1.1

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January 2015

Section 1: Product Identification

Product Type: Liquid Polymer Tube Crack Repair Products

Akona Product Name:

Akonaseal™ Polyurethane Self-Leveling Smooth Sealant

Section 2: Hazard Identification

Emergency overview

WARNING: SENSITIZATION CAN OCCUR IN SOME INDIVIDUALS, LEADING TO ASTHMA-LIKE SPASMS OF THE BRONCHIAL TUBES AND DIFFICULTY BREATHING. INDIVIDUALS WITH A HISTORY OF RESPIRATORY ILLNESS, ASTHMATIC CONDITIONS, EYE DAMAGE OR TDI SENSITIZATION SHOULD NOT BE EXPOSED TO THIS PRODUCT. TDI IS INCLUDED IN THE NTP ANNUAL REPORT ON CARCINOGENS. RESULTS FROM A TDI HEALTH STUDY INDICATE THAT OVEREXPOSURE TO A RESPIRATORY IRRITANT, RESULTING IN LOWER RESPIRATORY TRACT SYMPTOMS COULD INCREASE THE RISKS OF DEVELOPING ASTHMA-LIKE REACTIONS FROM SUBSEQUENT TDI EXPOSURE.

Irritating to eyes, respiratory system and skin.

CONTAINS MATERIAL WHICH MAY CAUSE CANCER.

Avoid contact with the skin, eyes and clothing.

State of matter: liquid

Color: pigmented

Odor: slight odor

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Of very high toxicity after short-term inhalation. Virtually nontoxic after a single skin contact. Virtually nontoxic after a single ingestion.

Irritation / corrosion:

Irritating to eyes, respiratory system and skin.



Sensitization:

Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract.

Chronic toxicity:

Carcinogenicity:

Contains a suspect carcinogen.

Repeated dose toxicity:

Prolonged exposure may cause chronic effects. Overexposure may cause CNS depression including headache, dizziness, nausea and loss of consciousness.

Teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Genotoxicity:

The substance was mutagenic in various bacterial test systems; however, a mutagenic effect could not be confirmed in mammalian cell culture.

Signs and symptoms of overexposure:

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Potential environmental effects

Aquatic toxicity:

Acutely harmful for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Degradation / environmental fate:

The product is unstable in water. The elimination data also refer to products of hydrolysis.

Applicable Precautionary Statements:

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P270: Do not eat, drink or smoke when using this product.

P280: Wear eye protection

P308+313/314. If exposed or concerns, or if you feel unwell: Get medical advice

P501: Dispose of contents in accord with local regulations

HMIS® III Rating: Health: 2* Fire: 1 Physical Hazard: 1

HMIS® is a registered trademark of the National Paint and Coatings Association

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.



Section 3: Hazardous Ingredients/Composition

Ingredient	Typical Percentage	CAS #
Limestone.....	10-30%	1317-65-3
Titanium dioxide	3.0-7.0%	13463-67-7
talc.....	3.0-7.0%	1487-96-6
bis(2-propylheptyl) phthalate	1.0-5.0%	53306-54-0
Stoddard solvent	1.0-5.0%	8052-41-3
Toluene-2, 6-diisocyanate	0.1-1.0%	91-08-7

Section 4: First Aid Measures

General advice:

First aid personnel should pay attention to their own safety. Remove contaminated clothing.

Inhalation:

If difficulties occur after vapor /aerosol has been inhaled, remove to fresh air and seek medical attention.

Eye contact:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

Skin Contact:

Wash thoroughly with soap and water. Under no circumstances should organic solvent be used. If irritation develops, seek medical attention.

Ingestion:

Rinse mouth and then drink plenty of water. Do not induce vomiting unless told to by a poison control center or doctor.

Note to physician:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

Section 5: Fire Fighting Measures

Flash point:	81.5 °C 178.7 °F	(ASTM D3278)
Autoignition:	not applicable	
Flammability:	not flammable	(UN Test N.1 (ready combustible solids))

Fire extinguishing media:

foam, water spray, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

Hazards during fire-fighting:

carbon dioxide, carbon monoxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black



Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

Section 6: Accidental Release Measures

Personal precautions:

Use personal protective clothing. Handle in accordance with good building materials hygiene and safety practice.

Environmental precautions:

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Cleanup:

For small amounts: Sweep/shovel up. Dispose of absorbed material in accordance with regulations.

For large amounts: Sweep/shovel up. Dispose of absorbed material in accordance with regulations.

Section 7: Handling and Storage

Handling

General advice:

Avoid skin contact. No special measures necessary provided product is used correctly.

Protection against fire and explosion:

Keep away from sources of ignition - No smoking. The relevant fire protection measures should be noted.

Storage

General advice:

Keep only in the original container in a cool, well-ventilated place. Protect from direct sunlight. Store protected against freezing.

Section 8: Exposure Controls/Personal Protection

Components with occupational exposure limits:

Titanium dioxide	OSHA	PEL 15 mg/ m ³ Total dust ;
	ACGIH	TWA value 10 mg/m ³ ;



talc	OSHA	TWA value 20 millions of particles per cubic foot of air TWA value 2.4 millions of particles per cubic foot of air Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.1 mg/m ³ Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.3 mg/ m ³ Total dust ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.
	ACGHI	TWA value 2 mg/ m ³ Respirable fraction ; The value is for particulate matter containing no asbestos and <1% crystalline silica
toluene-2,6-diisocyanate	ACGIH	TWA value 0.005 ppm ; STEL value 0.02 ppm ;
Limestone	OSHA	PEL 5 mg/ m ³ Respirable fraction ; PEL 15 mg/ m ³ Total dust ;

Personal protective equipment

Skin protection:

Chemical resistant protective gloves.

Eye protection:

Safety glasses with side shields.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Avoid contact with the skin, eyes and clothing. No special measures necessary if stored and handled correctly. Handle in accordance with good building materials hygiene and safety practice. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).



Section 9: Physical and Chemical Properties

Appearance and odor:	Paste. Slight odor.
Color:	Pigmented gray
pH value:	not applicable
Flash point:	178.7° F (81.5° C) (ASTM D3278)
Flammable limits:	not flammable
Boiling Point:	not applicable
Density:	approx. 0.97 g/cm ³ (20° C)
Solubility in water:	(15° C) insoluble
Miscibility with water:	(20° C) not (e.g. <10%)

Section 10: Stability and Reactivity

Conditions to avoid:

See MSDS section 7 - Handling and storage.

Substances to avoid:

strong acids, strong bases, strong oxidizing agents

Hazardous reactions:

The product is stable if stored and handled as prescribed/indicated.

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

Oxidizing properties:

not fire-propagating

Section 11: Toxicological Information

Acute toxicity

Information on: Stoddard solvent

Assessment of acute toxicity: Aspiration may result in chemical pneumonitis, which may be fatal.

Information on: toluene-2,6-diisocyanate

Assessment of acute toxicity: Of very high toxicity after short-term inhalation. In animal studies the substance is virtually nontoxic after a single ingestion. In animal studies the substance is virtually nontoxic after a single skin contact. EUclassification

Irritation / corrosion

Information on: toluene-2,6-diisocyanate

Assessment of irritating effects: Irritating to eyes and skin.



Sensitization

Information on: toluene-2,6-diisocyanate

Assessment of sensitization: The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Repeated dose toxicity

Information on: bis(2-propylheptyl) phthalate

Assessment of repeated dose toxicity: Repeated exposure to high doses of the substance causes reversible liver changes in rodents. According to present knowledge, these effects do not occur in man.

Information on: Stoddard solvent

Assessment of repeated dose toxicity: Overexposure may cause liver and kidney toxicity. Repeated exposures may result in pulmonary congestion.

Genetic toxicity

Information on: toluene-2,6-diisocyanate

The substance was mutagenic in various test systems with bacterias and cell cultures; however, these results could not be confirmed in tests with mammals. Literature data.

Carinogenicity

Information on: Titanium dioxide

IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term studies in rats in which the substance was given by inhalation, a carcinogenic effect was observed. Tumors were only observed in rats after chronic inhalative exposure to high concentrations which caused sustained lung inflammation. In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. Dermal exposure is not expected to be carcinogenic.

Information on: bis(2-propylheptyl) phthalate

In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: toluene-2,6-diisocyanate

IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).

Other Information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.



The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

Information on: Stoddard solvent

In tests with mammals a central nervous system disorder was observed.

Section 12: Ecological Information

Degradability / Persistence

Biological / Abiological Degradation

Evaluation: Poorly biodegradable.

Poorly biodegradable.

The product is unstable in water. The elimination data also refer to products of hydrolysis.

Other adverse effects:

Acutely harmful for aquatic organisms. Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

Section 13: Disposal Considerations

Waste disposal of substance:

Dispose of in accordance with local authority regulations. Do not discharge into drains/surface waters/groundwater..

Section 14: Transportation

Land transport

USDOT

Classified as combustible liquid in containers greater than 119 gallons.

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

Section 15: Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed



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OSHA hazard category:

IARC 1, 2A or 2B carcinogen; NTP listed carcinogen; Chronic target organ effects reported; OSHA PEL established; ACGIH TLV established;
Combustible Liquid

EPCRA 311/312 (Hazard categories):

Acute; Chronic; Fire

CERCLA RQ

5000 LBS

CAS Number

7664-38-2; 101-68-8

Chemical name

phosphoric acid; Diphenylmethane-4,4'-diisocyanate (MDI)

1000 LBS

108-88-3

Toluene

100 LBS

75-35-4; 107-13-1;

108-90-7; 75-28-5;

584-84-9; 91-08-7

1,1-dichloroethylene; acrylonitrile; chlorobenzene; Propane, 2-methyl-; toluene-2,4-diisocyanate; toluene-2,6-diisocyanate

State regulations

State RTK

MA, NJ, PA

CAS Number

13463-67-7

Chemical name

Titanium dioxide

MA, NJ, PA

14807-96-6

talc

NJ, PA

53306-54-0

bis(2-propylheptyl) phthalate

MA, NJ, PA

8052-41-3

Stoddard solvent

MA, NJ, PA

91-08-7

toluene-2,6-diisocyanate

CA Prop. 65:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

Section 16: Other Information

Additional information on the product is available at: www.tccmaterials.com

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products. Before using any product, read its label and safety data sheet.