

MSDS Document

Product BOSS® 340 Fast Cure Polurethane Adhesive/Sealant

1. Chemical Product and Company Identification

Trade Name of this Product BOSS® 340 Fast Cure Polurethane Adhesive/Sealant

Synonyms: Construction Sealants & Caulks, 02682WH10, 02682BK10, 02682GY10, 34001, 34002, 34003

MSDS ID BOSS340

Manufacturer

Accumetric, LLC
350 Ring Road
Elizabethtown, KY 42701

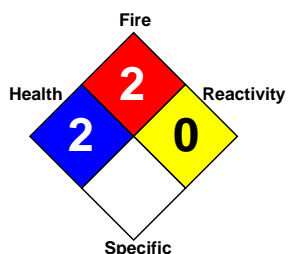
Phone Number

(270) 769-3385

Emergency Phone

CHEMTREC (800) 424-9300

Revision Date 9/28/2005



2. Composition and Information on Ingredients

Ingredient	CAS Number	Weight %	ACGIH TLV	PEL	STEL
Xylene	1330-20-7	3% - 7%	100 ppm	100 ppm	150 ppm
Titanium Dioxide	13463-67-7	1% - 5%	10 mg/m	15 mg/m	
Calcium oxide	1305-78-8	1% - 5%	2 mg/mm3	5 mg/mm3	
Ethyl benzene	100-41-4	0.5% - 1.5%	100 ppm	100 ppm	125 ppm
4,4'-Diphenylmethane diisocyanate	101-68-8	0.5% - 1.5%	0.005 ppm TWA	0.02 ppm	

3. Hazard Identification

Note

As a service to our customers, hazard warnings and information have been included for ALL chemicals listed in this MSDS. However, not all of these chemicals are defined as

"hazardous" by ISO or OSHA standards. Only those chemicals listed in Section 2 of this MSDS are defined by ISO and/or OSHA as "hazardous" based upon the properties and concentrations of each chemical.

Eye Contact

Direct contact irritates moderately with redness and swelling. Xylene, calcium oxide and MDI may cause severe eye irritation in dust form.

Skin Contact

A single short exposure (less than 24 hours) may irritate. Repeated prolonged contact (24 to 48 hours) may irritate moderately. MDI may cause irritation to the skin or mucous membranes. Product contains xylene and calcium oxide, which are possible skin sensitizers. Ethyl benzene may be absorbed through the skin.

Inhalation

Vapor overexposure may severely irritate eyes, nose, throat, upper respiratory tract and lungs. Vapor overexposure may cause drowsiness. Inhalation of high concentrations of xylene and/or ethyl benzene may cause respiratory irritation or difficulties and central nervous system effects characterized by headache, nausea and dizziness. MDI vapors or mist can cause irritation of upper respiratory tract: signs/symptoms can include soreness of the nose and throat, coughing and sneezing. Persons previously sensitized to isocyanates may experience an allergic respiratory reaction: signs/symptoms can include difficulty breathing, wheezing, tightness of chest and respiratory failure. Overexposure to titanium dioxide (dust form) may cause pulmonary fibrosis (scarring of lungs).

Ingestion

Small amounts transferred to the mouth by fingers during use, etc. should not injure. Swallowing large amounts may cause digestive discomfort and gastrointestinal irritation. Aspiration of xylene or ethyl benzene into lungs may cause chemical pneumonitis.

4. First Aid Information

Eye Contact

Immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation develops.

Skin Contact

Remove from skin and wash thoroughly with soap and water or waterless cleanser. Get medical attention if irritation or other ill effects develop or persist.

Inhalation

Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention if symptoms persist.

Ingestion

DO NOT INDUCE VOMITING. Seek immediate medical attention.

Comments

Treat according to person's condition and specifics of exposure.

5. Fire Fighting Measures

Flash Point	> 65C (150F)
FP Method	Setaflash
LEL	1
UEL	8

Extinguishing Media

Carbon dioxide, water fog (or spray), dry chemical, foam

Unsuitable Extinguishing Media

Water

Specific Fire Hazards

None known

Special Fire Fighting Procedures

Wear full protective clothing including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coats and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head. Water may not effectively extinguish fire, however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. If a large quantity of material is involved, evacuate area.

Hazardous Decomposition Products

By high heat and fire: oxides of carbon, oxides of nitrogen, and isocyanates.

6. Accidental Release Measures

Personal Precautions

Observe all personal protective equipment recommendations described in Sections 5 and 8.

Environmental Precautions

Disposal of collected product, residues, and cleanup materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations.

Methods for Cleaning Up

Ventilate area. Extinguish all ignition sources. Contain spill. Evacuate unprotected personnel from hazard area. Cover with absorbent, place in approved drum; do not seal drum for 48 hours to avoid possible pressure build-up. Local, state and federal reporting regulations may apply to spills or releases of this material into the environment. See applicable regulatory compliance information in Section 15.

7. Handling and Storage

Handling

Assure good ventilation.

Storage

Eliminate sources of ignition. Store in original sealed containers away from heat and moisture. Shelf-life is 12 months at 73°F and 50% relative humidity.

8. Exposure Controls and Personal Protection

Engineering Controls

Local Ventilation: Recommended

General Ventilation: Recommended

Eye Protection

Avoid eye contact. Use proper protection - safety glasses as a minimum.

Skin Protection

Avoid skin contact. Protect hands with impervious rubber gloves and wear typical full cover clothing. Gloves must be checked before each use for signs of degradation and penetration and for proper functioning.

Respiratory Protection

Avoid breathing vapors. Wear appropriate, properly fitted NIOSH/MSHA approved respirator when the airborne contaminant levels exceed that exposure limits indicated in this MSDS. Follow respirator manufacturer's directions for respirator use. Industrial hygiene personnel can assist in judging the adequacy of existing engineering controls.

Ingestion

Wash hands after handling and before eating.

Precautionary Measures

Avoid eye contact. Avoid skin contact. Avoid breathing vapor. Keep container closed. Do not take internally. Use reasonable care.

Note

These precautions are for room temperature handling. Use at elevated temperatures or aerosol/spray applications may require added precautions.

9. Physical and Chemical Properties

Physical State	Solid (Paste)
Specific Gravity	1.21
Density lbs/Gal.	10.1
Color/Appearance	Various
Odor	Slight odor of xylene
pH	Not applicable
Boiling/Cond. Point	Not applicable
Melting/Freezing Point	Not applicable
Solubility	Nil in water
Evaporation Rate	Not applicable
Percent Volatile	< 9% by volume
Viscosity	> 500,000 cps
Vapor Density	3.66 (Xylene)
Vapor Pressure	Not applicable

Note

The above information is not intended for use in preparing product specifications. Contact Accumetric LLC before writing specifications.

10. Stability and Reactivity

Chemical Stability

Stable

Hazardous Polymerization

Will not occur

Conditions to Avoid

Exposure to air or moisture until ready to use. Store away from water or moisture as this will lead to premature curing of the material.

Materials to Avoid

Amines, alcohol and water will react with this material. Water reacts with this material to form carbon dioxide, which could result in the buildup of pressure in a sealed container. But it is highly unlikely that enough water will mix in to form enough carbon dioxide to present a hazardous situation.

Hazardous Decomposition Products

Oxides of carbon and oxides of nitrogen, isocyanates. Also possible are oxides of sulfur, phenol and hydrogen cyanide.

11. Toxicological Information

Chronic Hazards

May cause respiratory sensitization, eye and skin irritation. May cause allergic respiratory and/or allergic skin reaction. See Section 2 for exposure limits, Section 3 for exposure effects.

Acute Toxicity

FOR XYLENE

Inhalation LC50 - 5,000 ppm/4hr (rat)

Oral LD50 - 4,300 mg/kg (rat)

Dermal LD50 - >1,700 mg/kg (rabbit)

FOR CALCIUM OXIDE

Not established

FOR TITANIUM DIOXIDE

Inhalation TCLo - 250 mg/m /6hr (rat)

Oral LD50 - >24,000 mg/kg (rat)

Dermal LD50 - >10,000 mg/m (rabbit)

FOR MDI

Inhalation LC50 - 178 mg/m (rat)

Oral LD50 - 2,200 mg/kg (mouse)

FOR ETHYL BENZENE

Oral LD50 - 3,500 mg/kg (rat)

Dermal LD50 - 17,800 µL/kg (rabbit)
Inhalation LCLo - 4,000 ppm/4hr (rat)

Chronic Toxicity

SKIN:

Repeated contact with skin may cause severe irritation, sensitization or allergic reaction.
Prolonged skin contact with xylene or ethyl benzene may cause skin irritation or dermatitis.
Chronic exposure to calcium oxide may cause severe corrosive damage.

INHALATION:

Vapor overexposure may cause drowsiness, irritate eyes, nose and throat, or injure blood, liver, or central nervous system. Prolonged inhalation of dust (including titanium dioxide in dust form) may cause respiratory effects including pulmonary fibrosis (scarring of the lungs). Chronic exposure to xylene may cause damage to the eyes, central nervous system, bone marrow, liver or kidneys. Chronic inhalation of calcium oxide may cause inflammation and ulcers in the respiratory system. Chronic overexposure of isocyanates (found in MDI) may cause lung damage and isocyanate sensitization (chemical asthma), which may be temporary or permanent. Chronic inhalation of ethyl benzene may have central nervous system effects.

ORAL:

Small amount transferred to the mouth by fingers during use, etc. should not injure.
Swallowing larger quantities may have adverse effects depending on quantity ingested.
Ingestion of xylene may cause central nervous system effects.

Specific Effects

This material contains the following components with the special hazards listed below.

Carcinogens: See below.

Teratogens: Xylene and ethyl benzene may cause teratogenic effects. Titanium dioxide has caused teratogenic effects on laboratory animals.

Mutagens: Positive and negative results has been observed "in vitro" for MDI and ethyl benzene. For ethyl benzene, mutation in mammalian somatic cells (Rodent, mouse)
Lymphocyte = 80 mg/L.

Reproductive Toxins:

Xylene and ethyl benzene may cause reproductive effects.

Carcinogenicity

Ingredients listed on National Toxicology Program (NTP) Annual Report on Carcinogens.

The following ingredients are reasonably anticipated to be human carcinogens:

Furan (110-00-9)
Propylene oxide (75-56-9)
Acetaldehyde (75-07-0)

Ingredients listed on International Agency for Research on Cancer (IARC) Monographs.

The following ingredients are listed as Group 2B: The agent is possibly carcinogenic to humans.

Ethyl benzene (100-41-4)
Furan (110-00-9)
Propylene oxide (75-56-9)
Acetaldehyde (75-07-0)

The following ingredients are listed as Group 3: The agent (mixture or exposure circumstances) is not classifiable as to its carcinogenicity to humans.

Polyvinyl chloride (9002-86-2)
Xylene (1330-20-7)
Titanium dioxide (13463-67-7)
Methyl diisocyanate (MDI) (101-68-8)

12. Ecological Information

For Xylene

Environmental Fate:

When released into the soil, this material may evaporate to a moderate extent. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material may evaporate to a moderate extent. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of less than 1 day. This material is not expected to significantly bioaccumulate. [Mixed xylenes: octanol / water partition coefficient 3.1 - 3.2; bioconcentration factor= 1.3 (eels).]

Environmental Toxicity:

This material is expected to be slightly toxic to aquatic life.
LC50 -- Range 10 - 100 mg/L/96hr (fish)

For Titanium Dioxide

Environmental Fate:

Not available

Environmental Toxicity:

Not available

For Calcium Oxide

Environmental Fate:

Not available

Environmental Toxicity:

This chemical is expected to be toxic to aquatic life.
TLm (Mosquito Fish): 240 ppm/24 hr - toxic
TLm (Sunfish): 100 ppm/3 hr - toxic
TLm (Vector snail): 300 ppm/24 hr - lethal

For MDI

Environmental Fate:

Aquatic: Rapidly hydrolyzes to form an insoluble crust.
Terrestrial: Will bind with moist soil. No leaching will occur.
Atmospheric: Remains in the vapor phase and is degraded by photochemically produced

radicals (half-life is 32 hours).
Will not bioconcentrate or biodegrade.

Environmental Toxicity:
This material may be toxic to some types of aquatic life.
LC50 -- >500 mg/L/24hr static (Daphnia magna, Limnea stagnalis and Zebra fish).

For Ethyl Benzene

Environmental Fate:
No information available

Environmental Toxicity:
This chemical is expected to be toxic to aquatic life.
Fish: Rainbow trout: LC50 - 14.0 mg/L/96hr
Static Bioassay Fish: Fathead Minnow: LC50 - 12.1 mg/L/96hr
Flow-through Bioassay Fish: Bluegill/Sunfish: LC50 - 150.0 mg/L/96hr
Static Bioassay, pH 6.5-7.9, 21-23 degrees C, Water flea: EC50 - 2.1 mg/L/48hr
Static Bioassay Water flea: EC50 - 75.0 mg/L/48hr
Static Bioassay Shrimp (mysidopsis bahia): LC50 - 87.6 mg/L/96hr
Sheepshead minnow: LC50 - 275 mg/L/96hr
Fathead minnow: LC - 42.3 mg/L/96hr in hard water, 48.5 mg/L/96 hr in softwater.

13. Disposal Considerations

We make no guarantee or warranty of any kind that the use or disposal of this product complies with all local, state, or federal laws. It is also the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable statutes.

RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste? NO

Federal Hazardous Waste Code: Not applicable

Characteristic Waste:
Ignitable: Not applicable
Corrosive: Not applicable
Reactive: Not applicable

TCLP: Not applicable

State and local laws may impose additional regulatory requirements regarding disposal.

Waste From Residues Contaminated Packaging

Residues of hazardous waste in empty containers should be managed according to 40 CFR 261.7

14. Transportation Information

DOT Road Shipment Information

Proper Shipping Name: Not applicable

Hazard Class: Not applicable
UN/NA Number: None
Packing Group: Not applicable
Quantity Limitations: Not applicable
Vessel Storage Requirements: Not applicable

15. Regulatory Information

The contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Status

All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

SARA Title III Section 302 Extremely Hazardous Substances

Furan (110-00-9)
Propylene oxide (75-56-9)

SARA Title III Section 304 CERCLA Hazardous Substances

Xylene (1330-20-7)
Ethyl benzene (100-41-4)
Furan (110-00-9)
Propylene oxide (75-56-9)
Acetaldehyde (75-07-0)

SARA Title III Section 312 Hazard Class

Acute: Yes
Chronic: No
Fire: No
Pressure: No
Reactive: No

SARA Title III Section 313 Toxic Chemicals

Xylene (1330-20-7)
MDI (101-68-8)
Ethyl benzene (100-41-4)

California Proposition 65

This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm:

Furan (110-00-9)
Propylene oxide (75-56-9)
Acetaldehyde (75-07-0)

Massachusetts

Xylene (1330-20-7)
Calcium oxide (1305-78-8)
Titanium dioxide (13463-67-7)
MDI (101-68-8)

Ethyl benzene (100-41-4)
Allyglycidyl ether (106-92-3)
Furan (110-00-9)
Propylene oxide (75-56-9)
Acetaldehyde (75-07-0)

New Jersey

Xylene (1330-20-7)
Titanium dioxide (13463-67-7)
MDI (101-68-8)
Ethyl benzene (100-41-4)
Furan (110-00-9)
Propylene oxide (75-56-9)
Acetaldehyde (75-07-0)

Pennsylvania

Xylene (1330-20-7)
Calcium oxide (1305-78-8)
Titanium dioxide (13463-67-7)
MDI (101-68-8)
Ethyl benzene (100-41-4)
Allyglycidyl ether (106-92-3)
Furan (110-00-9)
Propylene oxide (75-56-9)
Acetaldehyde (75-07-0)

16. Other Information

Disclaimer

The data contained herein is based upon information that Accumetric LLC believes to be reliable. Users of this product have the responsibility to determine that suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. All statements to suggestions are made without warranty, expressed or implied, regarding the accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.