

SAFETY DATA SHEETS:

Zydex Industries

PRODUCT NAME: Zycobond

Issue Date: April 14,2016

Print Date: April 14,2016

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

- **Product Name-** Zycobond
- **Recommended use of chemical and restriction on use- Identified Uses:** For Dust control on gravel roads & for bonding in construction and coatings.
- **Company Identification-** Zydex Industries , 61, Gotri Sevasi Road, Gotri, Vadodara, Gujarat , India -390 021
- **Customer Information Number-** 91-265-3312000, info@zydexindustries.com
www.zydexindustries.com
- **Emergency Telephone Number-** Dr. Ajay Ranka (+91) 9825008145/
Dr. Moulik Ranka (+91) 7567622211

2. HAZARDS IDENTIFICATION

- **Hazards Classification**

According to Regulation 2012 OSHA Hazard Communication Standard ; 29CFR Part 1910.1200

Classification of the Product

Skin Cor./Irrit.	2	Skin Corrosion/Irritation
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment – acute
Aquatic Chronic	3	Hazardous to the aquatic environment - chronic

- **Label Elements**

Pictogram:



- **Signal Warning-**

Hazard Statement:

H319	Cause serious eye irritation
H315	Cause Skin Irritation

- **Precautionary Statements (Prevention):**

P280	Wear protective gloves and eye/face protection
P273	Avoid release to the environment
P264	Wash with plenty of water and soap thoroughly after handling

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➤ **Precautionary Statements (Response):**

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303 +P352	IF ON SKIN (on hair): Wash with plenty of soap and water.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician.
P362 + P364	Take off contaminated clothing and wash it before reuse.

➤ **Precautionary Statements (Disposal):**

P501	Dispose of contents/ container to hazardous or special waste collection point
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➤ **Other hazards:**

No specific danger known, if the regulations/notes for storage and handling are considered. If the product adheres to skin, irritation may occur when it dries.

3. COMPOSITION/INFORMATION ON INGREDIENTS
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According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.12

Component	CAS No.	Concentration (%)
Quaternary ammonium Compounds	Proprietary	1-5
Methanol	67-56-1	0.1-0.2
Acetic Acid	64-19-7	0.2-1
Acrylic Co polymer	Proprietary	34-36
Water	7732-18-5	62-65

4. FIRST AID MEASURES

➤ **Description of first aid measures-**

- **General Advice-** Remove contaminated clothing.
- **If Inhaled:** Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.
- **If on Skin:** Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.
- **If in eyes:** Flush with copious amounts of water for at least 15 minutes. If irritation develops, seek medical attention.
- **If swallowed:** Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is under conscious or having convulsions.

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➤ **Most Important symptoms and effects, both acute and delayed**

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

➤ **Indication of any immediate medical attention and special treatment needed**

Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

5. FIREFIGHTING MEASURES

➤ **Suitable Extinguishing Media-** Water spray, foam, dry powder

➤ **Special hazards arising from substance/mixture**

Hazards during fire-fighting:

No particular hazards known.

➤ **Advice for firefighters**

Protective equipment for Firefighting:

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

➤ **Further Information:**

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered.

6. ACCIDENTAL RELEASE MEASURES

➤ Further accidental measures:

High risk of slipping due to leakage /spillage of product.

➤ **Personal precautions, protective equipment and emergency procedures-**

Use personal protective clothing. Avoid contact with skin and eyes.

➤ **Environmental precautions-** Do not release untreated into natural waters.

➤ **Methods and materials for containment and cleaning up-**

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, Keiselgujr). Dispose of absorbent material in accordance with regulations.

For large amounts: Pump of product.

Spills should be contained, solidified and placed in suitable containers for disposal.

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7. HANDLING AND STORAGE

➤ **Precautions for safe handling**

Handle in accordance with good industrial hygiene & safety practice. No special measures necessary provided product is used correctly. Ensure adequate ventilation.

➤ **Conditions for safe storage, including any incompatibilities**

Further information on storage conditions: Store protected against freezing.

➤ **Storage Stability- 12 months.**

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

➤ **Components with occupational exposure limits**

Ingredient	Exposure limits
Methanol	<p>ACGIH TLV (United States,3/2012). Absorbed through skin. TWA : 200 ppm 8 hours TWA : 262 mg/m³ 8 hours STEL : 250 ppm 15 minutes STEL : 328 mg/ m³ 15 minutes</p> <p>OSHA PEL 1989 (United States,3/1989).Absorbed through skin. STEL : 250 ppm 15 minutes STEL : 325 mg/ m³ 15 minutes TWA : 200 ppm 8 hours TWA : 260 mg/m³ 8 hours</p> <p>NIOSH REL (United States,6/2009). Absorbed through skin. TWA : 200 ppm 10 hours TWA : 260 mg/m³ 10 hours STEL : 250 ppm 15 minutes STEL : 325 mg/ m³ 15 minutes</p> <p>OSHA PEL (United States,6/2010). Absorbed through skin. TWA : 200 ppm 8 hours TWA : 260 mg/m³ 8 hours</p>

Advice on system design:

Ensure adequate ventilation

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate.

Hand protection:

Chemical resistant protective gloss.

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Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

General Safety and hygiene measures:

Hands and/or face should be washed before breaks and at the end of the shift. Avoid contact with skin and eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	Liquid, dispersion
Colour	:	White
Odour	:	Faint Odour
Odour Threshold	:	No data available
pH	:	Approx. 5.0 – 5.6
Information on : Water		
Melting point	:	0°C
Information on : Water		
Boiling point	:	100°C
Flash point	:	>70°C
Flammability	:	Not flammable
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Information on : Water		
Vapour Pressure	:	-
Density	:	1-1.02 g/ml
Relative density	:	No data available
Vapour density	:	Not determined
Partition coefficient n-octanol/		
Water (log Pow)	:	Not applicable
Self-ignition temperature	:	Not self-igniting
Viscosity, dynamic	:	Approx. 20-200 c.p. at 30°C
Water solubility	:	(15°C) Partly Soluble
Miscibility with Water	:	Miscible
Other Information	:	Particle Size: <95 nm

10. STABILITY AND REACTIVITY➤ **Reactivity-**

No hazardous reaction if stored & handled as prescribed/ indicated.

Corrosion to metals: Corrosive effects to metal are not anticipated.

Oxidising Properties: not fire- propagating.

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- **Chemical stability-** The Product is stable if stored and handled as prescribed/ indicated.
- **Possibility of hazardous reactions-**
No hazardous reactions when stored and handled according to instructions. After long storage, slight quantities of carbon monoxide may be formed.
The Product is chemically stable.
- **Conditions to avoid-** Avoid extreme heat.
- **Incompatible materials-** Metal Salts
- **Hazardous decomposition products**
Decomposition Products:
Hazardous decomposition products: carbon dioxide, carbon monoxide, hydrocarbons

11. TOXICOLOGICAL INFORMATION

- **Primary routs of exposure**
Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route or entry for liquefied gases.
- **Acute Toxicity/ Effects**

Acute Oral Toxicity
Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation, may cause gastrointestinal disturbances. The product has not been tested. The statement has been derived from substances/ products of a similar structure or composition.

Oral
Type of Value: LD50
Species: Rat
Value: > 2000 mg/ Kg

Dermal
Type of Value : ATE
Value: > 5000 mg/Kg

Assessment other acute effects
Assessment of STOT single:

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Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation/ Corrosion:

Assessment of irritating effects: Irritating to eyes. Irritating to skin. If the product adheres to skin, irritation may occur when it dries. The product has not been tested. The Statement has been derived from the properties of the individual components.

Sensitization

Assessment of sensitization: Skin sensitising effects were not observed in animal studies for sub components. The product has not been tested. The statement has been derived from substances/ products of a similar structure or composition.

Aspiration Hazard

Not Applicable

➤ **Chronic Toxicity/ Effects**

Repeated dose toxicity

Assessment of repeated dose toxicity: No adverse effects were observed after repeated exposure in animal studies. The product has not been tested. The statement has been derived from substances/ products of a similar structure or composition.

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity: The data available for an assessment of the effect of the substance on developmental toxicity are not sufficient for a proper evaluation.

Reproductive toxicity

Assessment of reproduction toxicity: Not expected to cause reproductive toxicity (based on composition)

Teratogenicity-

Assessment of Teratogenicity: the data available for an assessment of the effect of the substance on developmental toxicity are not sufficient for a proper evaluation.

Symptoms of Exposure:

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

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12. ECOLOGICAL INFORMATION

➤ **Toxicity**

Toxicity to fish

LC 50 (96h) 10-100 mg/l, Fish (OECD Guideline 203, static)

The product has not been tested. The statement has been derived from the properties of the individual components.

➤ **Persistence and degradability**

Assessment biodegradation and elimination (H₂O)

Not readily bio degradable (by OECD Criteria). The product has not been tested. The statement has been derived from the properties of the individual components.

➤ **Bio accumulative Potential**

Bioaccumulation potential

Based on its structural properties, the polymer is not biologically available. Accumulation in organisms is not to be expected.

➤ **Mobility in Soil**

Assessment transport between environmental compartments

No data available.

➤ **Additional Information**

Adsorbable organically – bound halogen (AOX): No data available

Other ecotoxicological advice:

Do not release untreated into natural waters. At the present state of knowlwdge, no negative ecological effects are expected.

Ecological data are determined by analogy.

13. DISPOSAL CONSIDERATIONS

➤ **Waste disposal of substance:**

Must be sent to a suitable incineration plant, observing local regulations.

Incinerate or dispose of in a licenced facility. Do not discharge into drains/surface waters/ groundwater.

➤ **Container disposal :**

Dispose of in a licenced facility. Recommended crushing, puncturing or other means to prevent unauthorized use of used containers.

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14. TRANSPORT INFORMATION

➤ **Land transport**

USDOT: Not classified as a dangerous good under transport regulations .

➤ **Sea Transport**

IMDG: Not classified as a dangerous god under transport regulations.

➤ **Air transport**

IATA/ICAO: Not classified as a dangerous good under transport regulations.

15. REGULATORY INFORMATION

Federal Regulations

Registration status:

Chemical TSCA,US release listed

United States Inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found

SARA 302/304 emergency planning and notification: No products were found

SARA 302/304/311/312 hazardous Chemical : Methanol

CA Prop. 65:

Warning this product contains a chemical(s) known to the state of California to cause cancer and birth defects or other Reproductive harm.

State Regulations

Massachusetts : The following components are listed : METHANOL

New York : The following components are listed : METHANOL

New Jersey : The following components are listed : METHANOL

Pennsylvania : The following components are listed : METHANOL

Ingredient Name	Cancer	Reproductive	No Significant risk level	Maximum acceptable dosage level
Methanol	No	Yes	No	No.

Canada Inventory: All components are listed or exempted.

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16. OTHER INFORMATION

- Hazard rating system
 - NFPA (national fire protection association)
Health- 2 Fire-1 Reactivity-0

 - HMIS (Hazard Material Identification System)
Health-2 Fire-1 Reactivity-0

- Revision date- Apr 14, 2016

Zydex Industries urges each customer or recipient of this (M) SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective data shown above. However no warranty express or implied is given. Regulatory requirements are subject to change and may differ between various locations.