

1	PRODUCT AND COMPANY IDENTIFICATION
Product Identifier: Common Name:	Urethabond 109 Part B Zinc Dust
SDS Number: Revision Date:	3/30/2016
Version: CAS Number: Product Use:	1 7440-66-6 Anti-corrosive Zinc filled Primer
Supplier Details:	Coatings for Industry, Inc. 319 Township Line Road Souderton, PA 18964
Emergency:	Infotrac
Contact:	USA: 1-800-535-5053 / International :352-323-3500
Phone:	215-723-0919
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HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Health, Reproductive toxicity, 2 Environmental, Hazards to the aquatic environment - Acute, 1 Environmental, Hazards to the aquatic environment - Chronic, 1

GHS Label elements, including precautionary statements

GHS Signal Word: WARNING

GHS Hazard Pictograms:



GHS Hazard Statements:

H361 - Suspected of damaging fertility or the unborn child

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

GHS Precautionary Statements:

no GHS precautionary statements indicated

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COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
7440-66-6	96%	Zinc powder or Zinc dust
1314-13-2	3%	Zinc oxide
7439-92-1	0.01-0.3%	Lead
7440-43-9	0.001-0.08%	Cadmium



4	FIRST AID MEASURES	
Inhalation:	Inhalation of zinc oxide fume from fire or welding on zinc-coated surfaces may cause zinc shakes or metal fume fever (a benign transient flu-like condition), stomach cramps or diarrhea. Remove the exposed person to fresh air immediately. Seek medical attention as soon as possible.	
Skin Contact:	Zinc dust contact causes skin dryness. Wash with soap and water. Seek medical attention if irritation persists.	
Eye Contact:	Becomes a mechanical irritant in the eye. Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Then remove contact lenses, if easily removeable, and continue irrigation for not less than 15 minutes.	
Ingestion:	Large oral intake may produce gastro-intestinal irritation. Give two (2) to three (3) cups of water or milk if victim is conscious. Do not induce vomiting. Get medical attention immediately.	

5	FIRE FIGHTING MEASURES

Explosion:

Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

Means of Extinction:

Blanket with Class D dry powder type extinguisher or smother with dry sand. Avoid water. Do not disturb until extinguished. Contact with acids and alkali hydroxides results in generation of potentially explosive hydrogen gas. Firefighters should wear PPE and SCBA with full face piece operated in positive pressure mode.

Method of Cleanup:

Wet zinc dust should be collected into an open container and set into an open, well ventilated area to allow for drying. Once dry, zinc dust can be disposed of in accordance with local, state, provincial and national regulations.

6	ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

Evacuate the area to prevent inhalation of zinc dust by unprotected workers. Remove potential for ignition by turning off sources of flame and other ignition sources. Allow airborne dust to settle then sweep up dust and dispose of in accordance with local, provincial, state or national regulations.

Environmental Precautions:

Transfer wet zinc to an open container and move to an open well ventilated area to allow for drying. Store in a dry area and avoid wetting. Report leakage to water to local environmental authorities for appropriate clean up measures. Leakage to roadways and ground should be

swept up and nuisance dust kept to a minimum.

Chemical Hazards from Fire:

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal in the air (i.e., clearing dust surfaces with compressed air). When exposed to fire zinc dust decomposes to zinc oxide. Zinc oxide fume may be hazardous if inhaled.



7	HANDLING AND STORAGE
Handling Precautions:	Wear PPE in accordance with Section 8 when handling zinc dust. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmosphere
Storage Requirements:	Store zinc dust in manufacturer's containers when possible. Tightly reseal any open containers and ensure presence of desiccant packets if originally supplied by the manufacturer to product specifications. Containers of zinc dust should be stored in well ventilated and dry areas to prevent the zinc dust from becoming wet.
	Storage Incompatibilities: Alkalis, sulphur, strong acids and bases, oxidizers, chlorinated solvents and water or other sources of moisture.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:	It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.
Personal Protective Equipment:	Recommended PPE include (but is not limited to) NIOSH N98-N99 respirator filters, latex, nitrile or other rubber gloves, eye protection as described under ANSI Z87.1 2003 standard and clothing sufficient to provide coverage from skin contact to airborne dusts.

Zinc powder or Zinc dust (7440-66-6) [96%] : no data available

Zinc oxide (1314-13-2) [3%]

Components with workplace control parameters

TWA	5 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
TWA metal fume	2 mg/m3 fever	USA. ACGIH Threshold Limit Values (TLV)
STEL metal fume	10 mg/m3 fever	USA. ACGIH Threshold Limit Values (TLV)
TWA	5 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
TWA	15 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z- 1 Limits for Air Contaminants
TWA	5 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z- 1 Limits for Air Contaminants
TWA	10 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
TWA	5 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z- 1 Limits for Air Contaminants
TWA	5 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
STEL	10 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
TWA	5 mg/m3	USA. NIOSH Recommended Exposure Limits
TWA	5 mg/m3	USA. NIOSH Recommended Exposure Limits



ST 10 mg/m3 USA. NIOSH Recommended Exposure Limits

C 15 mg/m3 USA. NIOSH Recommended Exposure Limits

Lead (7439-92-1) [0.01-0.3%]

Components with workplace control parameters See 1910.1025

TWA0.05 mg/m3USA. ACGIH Threshold Limit Values (TLV)Confirmed animal carcinogen with unknown relevance to humans

TWA0.05 mg/m3USA. ACGIH Threshold Limit Values (TLV)Central Nervous System impairment Hematologic effects Peripheral Nervous System impairmentSubstances for which there is a Biological Exposure Index or Indices (see BEI section) Confirmedanimal carcinogen with unknown relevance to humans

TWA0.05 mg/m3USA. NIOSH Recommended Exposure LimitsSee Appendix C

Cadmium (7440-43-9) [0.001-0.08%]

Components with workplace control parameters

TWA0.1 mg/m3USA. Occupational Exposure Limits (OSHA) - Table Z2Z37.5-1970 This standard applies to any operations or sectors for which the Cadmium standard,
1910.1027, is stayed or otherwise not in effect.

CEIL 0.3 mg/m3 USA. Occupational Exposure Limits (OSHA) - Table Z2 Z37.5-1970 This standard applies to any operations or sectors for which the Cadmium standard, 1910.1027, is stayed or otherwise not in effect.

TWA0.0020 mg/m3USA. ACGIH Threshold Limit Values (TLV)Suspected human carcinogen

TWA0.01 mg/m3USA. ACGIH Threshold Limit Values (TLV)Kidney damage Substances for which there is a Biological Exposure Index or Indices (see BEIsection) Suspected human carcinogen

TWA0.002 mg/m3USA. ACGIH Threshold Limit Values (TLV)Kidney damage Substances for which there is a Biological Exposure Index or Indices (see BEIsection) Suspected human carcinogenSee 1910.1027. See Table Z-2 for the exposure limits for any operations or sectors where theexposure limits in 1910.1027 are stayed or are otherwise not in effect.

TWA 0.2 mg/m3 USA. Occupational Exposure Limits (OSHA) - Table Z2 Z37.5-1970 This standard applies to any operations or sectors for which the Cadmium standard, 1910.1027, is stayed or otherwise not in effect.

CEIL 0.6 mg/m3 USA. Occupational Exposure Limits (OSHA) - Table Z2 Z37.5-1970 This standard applies to any operations or sectors for which the Cadmium standard, 1910.1027, is stayed or otherwise not in effect. Potential Occupational Carcinogen See Appendix A



PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Physical State: Spec Grav./Density: Blue-gray Powder 7.0-7.1

10 STABILITY AND REACTIVITY

Reactivity:The product is stable and non-reactive under normal conditions of use, storage and transport.Materials to Avoid:Alkalis, sulphur, strong acids and bases, oxidizers, chlorinated solvents and water or other sources of
moisture.Hazardous Decomposition:Heat generated zinc oxide fume. Contact with acids or alkaline hydroxides may generate hydrogen gas,
which is flammable.
Reactivity with water is similar but very slow. Under normal conditions, zinc dust is stable.

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TOXICOLOGICAL INFORMATION

Zinc powder or Zinc dust (7440-66-6) [96%]

Information on toxicological effects

Acute toxicity: Oral LD50 no data available Inhalation LC50 Dermal LD50 Other information on acute toxicity

Skin corrosion/irritation: no data available Serious eye damage/eye irritation: no data available Respiratory or skin sensitization: Did not cause sensitization on laboratory animals. Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available Teratogenicity: no data available Specific target organ toxicity - single exposure (Globally Harmonized System): no data available Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional Information:



RTECS: ZG8600000

Zinc oxide (1314-13-2) [3%]

Information on toxicological effects

Acute toxicity: Oral LD50 LD50 Oral - mouse - 7,950 mg/kg Inhalation LC50 LC50 Inhalation - mouse - 2,500 mg/m3 Dermal LD50 no data available Other information on acute toxicity

Skin corrosion/irritation: Skin - rabbit - Mild skin irritation - 24 h Serious eye damage/eye irritation: Eyes - rabbit - Mild eye irritation - 24 h Respiratory or skin sensitization: no data available Germ cell mutagenicity: Genotoxicity in vitro - Hamster - Embryo Unscheduled DNA synthesis

Morphological transformation. Sister chromatid exchange Genotoxicity in vivo - guinea pig - Inhalation

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available Teratogenicity: no data available Specific target organ toxicity - single exposure (Globally Harmonized System): no data available Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

Signs and Symptoms of Exposure: Zinc oxide dust or fume can irritate the respiratory tract. Prolonged skin contact can produce a severe dermatitis called oxide pox. Exposure to high levels of dust or fume can cause metallic taste, marked thirst, coughing, fatigue, weakness, muscular pain, and nausea followed by fever and chills. Severe overexposure may result in bronchitis or pneumonia with a bluish tint to the skin., prolonged or repeated exposure can cause:, Reversible liver enzyme abnormalities., Diarrhoea

Synergistic effects: no data available

Additional Information:

RTECS: ZH4810000

Lead (7439-92-1) [0.01-0.3%]

Information on toxicological effects

Acute toxicity: Oral LD50 no data available Inhalation LC50 Dermal LD50



Other information on acute toxicity

Skin corrosion/irritation: no data available Serious eye damage/eye irritation: no data available Respiratory or skin sensitization: no data available Germ cell mutagenicity: Genotoxicity in vivo - rat - Inhalation Cytogenetic analysis

Carcinogenicity:

Limited evidence of carcinogenicity in animal studies IARC: 2B - Group 2B: Possibly carcinogenic to humans (Lead group entry Annex I) NTP: Reasonably anticipated to be a human carcinogen (Lead group entry Annex I) Reasonably anticipated to be a human carcinogenThe reference note has been added by TD based on the background information of the NTP. (Lead group entry Annex I) OSHA: 1910.1025 (Lead group entry Annex I)

Reproductive toxicity: Reproductive toxicity - rat - Inhalation:

Effects on Newborn: Biochemical and metabolic.

Reproductive toxicity - rat - Oral: Effects on Newborn: Behavioral.

Reproductive toxicity - mouse - Oral: Effects on Fertility: Female fertility index (e.g., # females pregnant per # sperm positive females; # females pregnant per # females mated). Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea).

Teratogenicity: Developmental Toxicity - rat - Inhalation:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Blood and lymphatic system (including spleen and marrow).

Developmental Toxicity - rat - Oral:

Specific Developmental Abnormalities: Blood and lymphatic system (including spleen and marrow). Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Developmental Toxicity - rat - Oral: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death.

Developmental Toxicity - mouse - Oral:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death. Suspected human reproductive toxicant

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Ingestion Harmful if swallowed. Skin Harmful if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

Signs and Symptoms of Exposure: anemia

Synergistic effects: no data available

Additional Information:

RTECS: OF7525000

Cadmium (7440-43-9) [0.001-0.08%]



Information on toxicological effects

Acute toxicity: Oral LD50 LD50 Oral - rat - 225 mg/kg Inhalation LC50 LC50 Inhalation - rat - 30 h - 25 mg/m3 Remarks: Lungs, Thorax, or Respiration:Dyspnea. Dermal LD50 no data available Other information on acute toxicity

Skin corrosion/irritation: no data available Serious eye damage/eye irritation: no data available Respiratory or skin sensitisation: no data available Germ cell mutagenicity: In vitro tests showed mutagenic effects

Carcinogenicity: Possible human carcinogen IARC: 1 - Group 1: Carcinogenic to humans (Cadmium) NTP: Known to be human carcinogen (Cadmium) Known to be human carcinogenThe reference note has been added by TD based on the background information of the NTP. (Cadmium) OSHA: 1910.1027 (Cadmium)

Reproductive toxicity: Suspected human reproductive toxicant

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available Specific target organ toxicity - repeated exposure (Globally Harmonized System): Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard: no data available

Potential health effects: Inhalation May be fatal if inhaled. May cause respiratory tract irritation. Ingestion Toxic if swallowed. Skin May be harmful if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

Signs and Symptoms of Exposure: Damage to the lungs., Kidney injury may occur., prolonged or repeated exposure can cause:, Vomiting, Diarrhoea, Lung irritation

Synergistic effects: no data available

Additional Information:

RTECS: EU9800000



12 ECOLOGICAL INFORMATION

Zinc powder or Zinc dust (7440-66-6) [96%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - Cyprinus carpio (Carp) - 450 µg/l - 96 h. Toxicity to daphnia LC50 - Daphnia magna (Water flea) - 0.068 mg/l - 48 h. and other aquatic invertebrates mortality NOEC - Daphnia - 0.101 - 0.14 mg/l - 7 d

Persistence and degradability: no data available Bioaccumulative potential: Bioaccumulation Algae - 7 d at 16 °C Bioconcentration factor (BCF): 466 Mobility in soil: no data available PBT and vPvB assessment: no data available Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects. no data available

Zinc oxide (1314-13-2) [3%]

Information on ecological effects

Toxicity: Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 1.1 mg/l - 96.0 h. Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 0.098 mg/l - 48 h. and other aquatic invertebrates

Persistence and degradability: no data available Bioaccumulative potential: no data available Mobility in soil: no data available PBT and vPvB assessment: no data available Other adverse effects: Very toxic to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Lead (7439-92-1) [0.01-0.3%]

Information on ecological effects

Toxicity: Toxicity to fish mortality LOEC - Oncorhynchus mykiss (rainbow trout) - 1.19 mg/l - 96.0 h. LC50 - Micropterus dolomieui - 2.2 mg/l - 96.0 h mortality NOEC - Salvelinus fontinalis - 1.7 mg/l - 10.0 d Toxicity to daphnia mortality LOEC - Daphnia - 0.17 mg/l - 24 h. and other aquatic invertebrates mortality NOEC - Daphnia - 0.099 mg/l - 24 h Toxicity to algae mortality EC50 - Skeletonema costatum - 7.94 mg/l - 10 d.

Persistence and degradability: no data available Bioaccumulative potential: Bioaccumulation Oncorhynchus kisutch - 2 Weeks Bioconcentration factor (BCF): 12

Mobility in soil: no data available PBT and vPvB assessment: no data available



Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

Cadmium (7440-43-9) [0.001-0.08%]

Information on ecological effects

Toxicity: Toxicity to fish mortality LOEC - Oncorhynchus mykiss (rainbow trout) - 0.0015 mg/l - 96 h. LC50 - Pimephales promelas (fathead minnow) - 1.0 μg/l - 96 h Toxicity to daphnia mortality NOEC - Daphnia - 0.019 mg/l - 24 h.

and other aquatic invertebrates mortality LOEC - Daphnia - 0.039 mg/l - 24 h EC50 - Daphnia magna (Water flea) - 0.024 mg/l - 48 h Toxicity to algae Growth inhibition IC50 - Chaetoceros sp. - 0.028 mg/l - 48 h.

Persistence and degradability: no data available Bioaccumulative potential: Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 72 d Bioconcentration factor (BCF): 55

Mobility in soil: no data available PBT and vPvB assessment: no data available Other adverse effects: Very toxic to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13 DISPOSAL CONSIDERATIONS

Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material. Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local

regulations. Larger empty containers, such as drums, should be returned to the

distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14 TRANSPORT INFORMATION

Non-hazardous for air, sea and road freight.



15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

RQ(1000LBS), Zinc powder or Zinc dust (7440-66-6) [96%] CERCLA, EPCRAWPC, MASS, NJHS, PA, PRIPOL, SARA313, TOXICPOL, TSCA

Zinc oxide (1314-13-2) [3%] MASS, OSHAWAC, PA, TSCA, TXAIR

RQ(10LBS), Lead (7439-92-1) [0.01-0.3%] CERCLA, EPCRAWPC, HWRCRA, MASS, NJHS, NRC, OSHAHTS, OSHAWAC, PA, PRIPOL, SARA313, TOXICPOL, TSCA, TXAIR

Regulatory CODE Descriptions

RQ = Reportable Quantity CERCLA = Superfund clean up substance EPCRAWPC = EPCRA Water Priority Chemicals MASS = MA Massachusetts Hazardous Substances List NJHS = NJ Right-to-Know Hazardous Substances PA = PA Right-To-Know List of Hazardous Substances PRIPOL = Clean Water Act Priority Pollutants SARA313 = SARA 313 Title III Toxic Chemicals TOXICPOL = Clean Water Act Toxic Pollutants TSCA = Toxic Substances Control Act OSHAWAC = OSHA Workplace Air Contaminants TXAIR = TX Air Contaminants with Health Effects Screening Level HWRCRA = RCRA Hazardous Wastes NRC = Nationally Recognized Carcinogens OSHAHTS = OSHA Hazardous and Toxic Substances

OTHER INFORMATION

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