

**MATERIAL SAFETY DATA SHEET**

MSDS #: 428	Issue Date: October 17, 2010	Revision #: 1	Revision Date: October 17, 2010
-------------	------------------------------	---------------	---------------------------------

<b>1. Product &amp; Company Information</b>			
Trade name: CTB(ZNO)-85	Chemical Description:		Emergency Contact: <i>Chemtec:</i> 1-800-424-9300 (in US) 1-703-527-3887 (Non-US)

**2. Hazard Summary & Hazardous Ingredients**

**Physical Hazards (None if Blank):** Dust explosion hazards are known to exist for some powder raw materials. The bead form of this product minimizes the generation of dust.

**Health Hazards (None if Blank):**

Eye, skin, respiratory irritant. Chronic exposure to heated dust or fumes may cause Metal Fume Fever.

**HMIS Ratings:** Hazard Rating Scale: 0 = minimal, 1 = slight, 2 = moderate, 3 = serious, 4 = severe

Health	Flammability	Physical Hazard	PPE
1 *	1	0	B

An asterisk in the HMIS Health code indicates a chronic health hazard. See section 3. The PPE recommendation is based on the PPE for the individual raw materials contained in this blend. It is our recommendation that PPE defined above be used when handling this product according to Section 8 of this MSDS. Individual plant environmental and handling conditions may vary; plant safety personnel should determine PPE specific to actual plant conditions.

**Exposure Limits (None if Blank):**

<u>Chemical Name:</u>	<u>CAS No.:</u>	<u>ACGIH:</u>	<u>OSHA:</u>
Oil mist	64742-52-5	5 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> STEL 2500 mg/m <sup>3</sup> IDLH	5 mg.m <sup>3</sup> TWA
Zinc oxide	1314-13-2	5 mg/m <sup>3</sup> fume/dust TWA, 10 mg/m <sup>3</sup> fume STEL, 15 mg/m <sup>3</sup> dust Ceiling, 500 mg/m <sup>3</sup> IDLH	5 mg/m <sup>3</sup> fume TWA, 15 mg/m <sup>3</sup> total dust, 5 mg/m <sup>3</sup> resp dust

**3. Health and Toxicology Information**

**Acute Overexposure (None if Blank):**

**Irritation:**

Eye	Skin	Irritation
x	x	x

May dry out skin and mucous membranes.

**Chronic Overexposure (None if Blank):**

Chronic exposure to heated dust or fumes may cause Metal Fume Fever. Repeated skin contact may cause dermatitis.

**Primary Routes(s) of Entry:** Eyes, Skin, Inhalation

**Medical Condition(s) Prone to Aggravation:**

Eye, skin, respiratory tract ailments.

**Toxicity Information (None if Blank):**

LD50 (oral, rat) in mg/kg: 2000

Inhalation: TCL0 (inhalation, human) 3 h: 600 mg/m<sup>3</sup>

**Carcinogenic Information (None if Blank):**

#### 4. First Aid

**Eye:** Rinse with plenty of water. Seek medical attention if irritation persists.

**Skin:** Wash off immediately with plenty of soap and water. Seek medical advice in case of irritation.

**Ingestion:** Seek medical attention.

**Inhalation:** Remove to fresh air. Seek medical advice if irritation persists.

#### 5. Fire-Fighting Measures

**Extinguishing Media:**

Dry chemical, carbon dioxide, water fog and foam.

**Unusual Fire and Explosion Hazards (None if Blank):**

**Fire Fighting Protective Equipment:**

A self contained breathing apparatus (SCBA) in positive pressure mode and full fire fighting protective gear should be worn for fighting fires.

**Special Fire-Fighting Procedures (None if Blank):**

**Flash Point based on the lowest known value of the components of this blend:** 200 C

#### 6. Accidental Release Measures

**Spill Clean-up:** Sweep up by mechanical means. Avoid dust formation.

Shut off ignition source.

**Waste Disposal:** Put into proper containers and dispose of in accordance with all local, state and federal regulations.

#### 7. Handling and Storage

**Storage Conditions:** Store in a cool, dry environment in original sealed packaging.

Store away from acids and oxidizers: x

Store away from high temperatures: Store below 120 C.

Do not store near magnesium or chlorinated rubber.

Keep away from flames, sparks or hot surfaces. Do not store in direct sunlight for extended periods of time.

**Handling:** Persons handling equipment should wear protective equipment specified in Section 8. Good housekeeping and hygienic practices should be observed.

#### 8. Exposure Controls and Personal Protection

**Eye:**  
Safety glasses

**Gloves:**  
Rubber or plastic gloves.

**Respiratory:**  
Dust mask.

**Clothing:**  
Long sleeved shirt and long pants.

**Special Plant Equipment:** Local exhaust ventilation, eye bath, safety shower.

**Hygienic Practices:** Wash after handling product. After work cloths be changed and washed before reuse. Do not smoke, eat or use alcohol while handling product.

*The dust-suppressed form of this product reduces dust exposure and the associated hazards.*

#### 9. Physical and Chemical Properties

<u>Physical State</u>	<u>Color</u>	<u>Odor</u>	<u>Specific Gravity</u>
Bead	White	Characteristic	3.04
<u>Melt Point (lowest known)</u>	<u>H<sub>2</sub>O Solubility</u>		
65 C	Insoluble		

## 10. Stability and Reactivity

**Stability & Polymerization:** Stable. Hazardous polymerization will not occur.

**Incompatibility:**

Strong Oxidizers: x

Strong Acids:

Avoid sources of ignition.

High temperatures (>800 C) treatment (calcining) which will change Reaction with magnesium and/or chlorinated rubber under heated conditions. toxicological properties. Nitrates, chlorates, carbides, phosphorus and heavy metals.

**Hazardous Decomposition Products:**

Carbon Oxides: x

Nitrogen Oxides: Sulfur Oxides: x

**Other Hazardous Decomposition Products (None if Blank):**

Smoke, fumes and unburned hydrocarbons and trace oxides.

**Special Sensitivity (None if Blank):**

## 11. Ecological Information

**Clean Water & Air Regulations (None if Blank):**

Zinc Compound CW-C

KEY: CW-A) Clean Water Act Hazardous Substances, 40 CFR 116.4, 117.3, CW-B) Clean Water Act Priority Pollutants, 40 CFR Sec. 40, CW-C) Clean Water Act Toxic Pollutants, 40 CFR 401.115 (F19), CA-A) Clean Air Act Hazardous Air Pollutants, 40 CFR Part 61, CA-B) Clean Air Act High-Risk Pollutants, 40 CFR Sec. 63.74, CA-C) Clean Air Act ARP Toxic Substances, 40 CFR Sec. 68.130.

## 12. Disposal Information

**Disposal Method:** Dispose of product or empty containers in accordance with local, state and federal regulations.

**Hazardous Waste Regulations (None if Blank):**

KEY: HZ-A) RCRA Acute Hazardous Wastes (P-List), 40 CFR Sec. 261.3, HZ-B) RCRA Characteristic Toxic Wastes (D-List), 40 CFR Sec. 261.24, HZ-C) RCRA Toxic Hazardous Wastes (U-list), 40 CFR Sec. 261.33, HZ-D) RCRA Appendix VII F/K List Hazardous Constituents, 40 CFR Part 261 App.VII, HZ-E) RCRA Appendix VIII Hazardous Constituents, 40 CFR Part 261 App VIII.

**Superfund Reportable Quantity Chemicals, 40 CFR Sec. 302.4 (F12) (None if Blank):**

Zinc compound (zinc oxide)

## 13. Transportation Information

**Ground DOT/TDG (None if Blank):**

**Air IATA (None if Blank):**

## 14. Regulatory Information

**Inventory Status (None if Blank):**

US TSCA:

All ingredients listed.

Canadian DSL/NDSL:

All ingredients listed.

SARA Title III:

Zinc compound (zinc oxide) S-B

KEY: S-A) SARA Title III Sec. 302 Extremely Hazardous Substances, 40 CFR Part 355, S-B) SARA Title III Sec. 313 Toxic Chemicals, 40 CFR Sec. 37, S-C) SARA Title III Sec. 313 Chemicals of Special Concern, 40 CFR Sec. 373.28:

SARA Title III, Section 313 (also known as the Emergency Planning and Community Right to Know Act, or EPCRA) requires certain suppliers of mixtures or trade name products to notify their customers when such mixtures or trade name products contain chemicals listed in Section 313. Listed below are Section 313 chemicals contained in this product (none if blank):

Chemical	CAS Number	Amount
Zinc compound (zinc oxide)	1314-13-2	85%

**TSCA Preliminary Assessment Information Reporting, 40 CFR Sec. 712 (None if Blank):**

**State Regulations (None if Blank):**

Zinc Ca Cb Ce Cf Cj FL Ib MA Na Nb Oa Pa Ta

Compound

**KEY:** CA: Ca) Director's List of Hazardous Substances, Cb) OSHA Workplace Airborne Contaminants, Cc) OSHA workplace Carcinogens, Cd) HWCL Extremely Hazardous Wastes, Ce) HWCL Hazardous Wastes, Cf) State Superfund Hazardous Substance, Cg) ARP Regulated Substance, Ch) Proposition 65 Carcinogens, Ci) Proposition 65 Reproductive Toxins, Cj) Air Toxics Requiring Quantification, Ck) CA Air Toxics Requiring Notification, FL: FL) Toxic Substances in the Workplace, IL: Ia) EPA (Water Sections) Priority Pollutants, Ib) EPA (Water Sections) Toxic Pollutants, Ic) Hazardous Waste, MA: MA) Substance List, MI: MI) Critical Materials Register, NJ: Na) Right-to-Know Hazardous Substances, Nb) Workplace Hazardous Substances, NY: NY) Hazardous Substance Bulk storage List, OH: Oa) Emergency Response Law Toxic Chemicals, Ob) Hazardous Wastes, PA: Pa) Hazardous Substances List, TX: Ta) Air Contaminants with Health Effects Screening Levels, Tb) Hazardous Wastes List.

**15. Other Information**

**Abbreviations:**

ND – Not Determined, NE – Not Established, PPE – Personal Protective Equipment

**References:** Code of Federal Regulations, Transportation, 49 CFR Parts 100 to 185, October 2000, NIOSH Pocket Guide to Chemical Hazards, June 1997, HMIS Implementation Manual, 2nd Edition, ChemCheck Handbook, Specialty Technical Publishers, IARC WEB site, NTP WEB site

**DISCLAIMER:** The information in the Material Safety Data Sheet is generated from what we believe to be reliable sources. The information is provided without any warranty, expressed or implied, regarding this correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. Because of this we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared for, and is only to be used with this product.