

MSDS Number: **Z1995** \* \* \* \* \* *Effective Date: 09/03/09* \* \* \* \* \*  
*Supercedes: 04/23/07*



From: Mallinckrodt Baker, Inc.  
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Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. And Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# ZINC CARBONATE

## 1. Product Identification

**Synonyms:** Basic zinc carbonate; zinc subcarbonate; carbonic acid, zinc salt (1:1)

**CAS No.:** 3486-35-9

**Molecular Weight:** Not applicable to mixtures.

**Chemical Formula:**  $3\text{Zn}(\text{OH})_2 \cdot 2\text{ZnCO}_3$

**Product Codes:** 4312

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Hazardous		
-----	-----	-----
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Zinc Carbonate	3486-35-9	ca. 3%
Yes		
Zinc Oxide	1314-13-2	ca. 70%
Yes		

### 3. Hazards Identification

#### Emergency Overview

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**CAUTION! MAY BE HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.**

**SAF-T-DATA**<sup>(tm)</sup> Ratings (Provided here for your convenience)

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Health Rating: 2 - Moderate

Flammability Rating: 1 - Slight

Reactivity Rating: 1 - Slight

Contact Rating: 2 - Moderate (Life)

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

Storage Color Code: Green (General Storage)

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#### Potential Health Effects

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##### **Inhalation:**

Zinc carbonate can irritate the respiratory tract, the effect being that of a mild alkali. Some soreness and coughing are symptoms.

##### **Ingestion:**

Not considered a significantly toxic substance, but contact with gastric juice can produce zinc chloride. Pain and strictures or cramps may occur in this case, and medical attention should be obtained.

##### **Skin Contact:**

Mild irritant and astringent, can cause pain and redness on long contact.

##### **Eye Contact:**

Mild, alkaline irritant, may cause some mechanical injury.

##### **Chronic Exposure:**

No information found.

##### **Aggravation of Pre-existing Conditions:**

No information found.

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### 4. First Aid Measures

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Ingestion:**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

**Skin Contact:**

Wash exposed area with soap and water. Get medical advice if irritation develops.

**Eye Contact:**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Call a physician if irritation persists.

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## 5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard. Sealed containers may burst under fire conditions due to release of carbon dioxide.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

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## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

Zinc oxide:

-OSHA Permissible Exposure Limit (PEL):

fume: 5 mg/m<sup>3</sup> (TWA)

respirable fraction: 5 mg/m<sup>3</sup> (TWA)

total dusts: 15 mg/m<sup>3</sup> (TWA)

-ACGIH Threshold Limit Value (TLV):

2 mg/m<sup>3</sup> (TWA), 10 mg/m<sup>3</sup> (STEL), Respirable fraction

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### **Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### **Skin Protection:**

Wear protective gloves and clean body-covering clothing.

### **Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

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## 9. Physical and Chemical Properties

**Appearance:**

White powder.

**Odor:**

Odorless.

**Solubility:**

Insoluble in water.

**Density:**

4.4

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

Not applicable.

**Melting Point:**

Decomposes to zinc oxide

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

No information found.

**Evaporation Rate (BuAc=1):**

No information found.

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## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

Fumes of zinc oxide can form at high temperatures.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

May react explosively with chlorinated rubber or magnesium at elevated temperatures.

**Conditions to Avoid:**

Incompatibles.

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## 11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure. Investigated as a reproductive effector.

-----\Cancer Lists\-----

Ingredient Category	---NTP Carcinogen---		IARC
	Known	Anticipated	
Zinc Carbonate (3486-35-9)	No	No	None
Zinc Oxide (1314-13-2)	No	No	None

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## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

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## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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## 14. Transport Information

Not regulated.

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## 15. Regulatory Information

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-----\Chemical Inventory Status - Part 1\-----
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Ingredient                                TSCA  EC   Japan
Australia
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Zinc Carbonate (3486-35-9)                Yes  Yes  Yes   Yes
Zinc Oxide (1314-13-2)                   Yes  Yes  Yes   Yes

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-----\Chemical Inventory Status - Part 2\-----
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Ingredient                                Korea  DSL  NDSL  Phil.
-----
Zinc Carbonate (3486-35-9)                Yes   Yes  No    Yes
Zinc Oxide (1314-13-2)                   Yes   Yes  No    Yes

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-----\Federal, State & International Regulations - Part 1\-----
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Ingredient                                -SARA 302-  -SARA 313-
Catg.                                     RQ      TPQ      List  Chemical
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Zinc Carbonate (3486-35-9)                No     No      No    Zinc compoun
Zinc Oxide (1314-13-2)                   No     No      No    Zinc compoun

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-----\Federal, State & International Regulations - Part 2\-----
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Ingredient                                CERCLA  -RCRA-  -TSCA-
                                           261.33  8(d)
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Zinc Carbonate (3486-35-9)                1000    No      No
Zinc Oxide (1314-13-2)                   No      No      No

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Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
 SARA 311/312: Acute: Yes      Chronic: No      Fire: No      Pressure: No  
 Reactivity: No      (Mixture / Solid)

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** None allocated.

### WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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## 16. Other Information

**NFPA Ratings:** Health: **1** Flammability: **0** Reactivity: **0**

**Label Hazard Warning:**

CAUTION! MAY BE HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

**Label Precautions:**

- Avoid breathing dust.
- Keep container closed.
- Use with adequate ventilation.
- Wash thoroughly after handling.

**Label First Aid:**

If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists. If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

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