1. Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Revision Date</th>
<th>Supercedes Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZINC FILLER TYPE II</td>
<td>02/09/2018</td>
<td>10/31/2017</td>
</tr>
</tbody>
</table>

1.2 Relevant identified uses of the substance or mixture and uses advised against

Component of multicomponent industrial coatings - Industrial use.

1.3 Details of the supplier of the safety data sheet

Manufacturer:
Carboline Company
2150 Schuetz Road
St. Louis, MO USA 63146

Regulatory / Technical Information:
Contact Carboline Technical Services at 1-800-848-4645

Datasheet Produced by:
Schlereth, Ken - ehs@stoncor.com

1.4 Emergency telephone number:

CHEMTREC 1-800-424-9300 (Inside US)
CHEMTREC +1 703 5273887 (Outside US)
HEALTH - Pittsburgh Poison Control 1-412-681-6669

2. Hazard Identification

2.1 Classification of the substance or mixture

Hazardous to the aquatic environment, Acute, category 1
Hazardous to the aquatic environment, Chronic, category 1

2.2 Label elements

Symbol(s) of Product

![Symbol](image)

Signal Word
warning

Named Chemicals on Label
HAZARD STATEMENTS

Hazardous to the aquatic environment, Acute, category 1
Hazardous to the aquatic environment, Chronic, category 1

PRECAUTION PHRASES

P273 Avoid release to the environment.
P391 Collect spillage.

2.3 Other hazards
No Information

Results of PBT and vPvB assessment:
The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-66-6</td>
<td>ZINC (DUST OR FUME)</td>
<td>75-100</td>
</tr>
<tr>
<td>1314-13-2</td>
<td>ZINC OXIDE</td>
<td>1.0-2.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>GHS Symbols</th>
<th>GHS Hazard Statements</th>
<th>M-Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-66-6</td>
<td>GHS09</td>
<td>H400-410</td>
<td>0</td>
</tr>
<tr>
<td>1314-13-2</td>
<td>GHS09</td>
<td>H400-410</td>
<td>0</td>
</tr>
</tbody>
</table>

Additional Information: The text for GHS Hazard Statements shown above (if any) is given in Section 16.

4. First-aid Measures

4.1 Description of First Aid Measures

AFTER INHALATION: Give oxygen or artificial respiration if needed. Remove person to fresh air. If signs/symptoms continue, get medical attention.
AFTER SKIN CONTACT: Wash off with warm water and soap.
AFTER EYE CONTACT: Flush eyes with water as a precaution. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
AFTER INGESTION: Do NOT induce vomiting. Obtain medical attention. Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed
This product has been tested and shown to fall well below the level of gas emission when exposed to water (49CFR Part 173 E, 4) and is, therefore, not a regulated product and is not defined as dangerous when wet. Product is packaged in steel or plastic water tight containers.

4.3 Indication of any immediate medical attention and special treatment needed
No Information

5. Fire-fighting Measures

5.1 Extinguishing Media:
Carbon Dioxide, Dry Chemical, Foam, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: No Information

5.2 Special hazards arising from the substance or mixture
No Information
5.3 Advice for firefighters
In the event of fire, wear self-contained breathing apparatus.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
In the case of dust or aerosol formation use respirator with an approved filter.

6.2 Environmental precautions
No Information

6.3 Methods and material for containment and cleaning up
No Information

6.4 Reference to other sections
No Information

7. Handling and Storage

7.1 Precautions for safe handling

INSTRUCTIONS FOR SAFE HANDLING: Keep containers dry and tightly closed to avoid moisture absorption and contamination. Do not smoke. Avoid dust formation. Protect from moisture. Avoid breathing vapors, mist or gas.

PROTECTION AND HYGIENE MEASURES: Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust. Avoid contact with the skin and the eyes.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Keep from any possible contact with water.

STORAGE CONDITIONS: Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)
No Information

8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (US)

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>ACGIH TLV-TWA</th>
<th>ACGIH TLV-STEEL</th>
<th>OSHA PEL-TWA</th>
<th>OSHA PEL-CEILING</th>
<th>OEL Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZINC (DUST OR FUME)</td>
<td>75-100</td>
<td>N/E</td>
<td>N/E</td>
<td>5.0 MG/M3</td>
<td>N/E</td>
<td></td>
</tr>
<tr>
<td>ZINC OXIDE</td>
<td>1.0-2.5</td>
<td>2 MGM3</td>
<td>10 MGM3</td>
<td>5 MGM3</td>
<td>N/E</td>
<td></td>
</tr>
</tbody>
</table>

FURTHER INFORMATION: No Information

8.2 Exposure controls

Personal Protection
RESPIRATORY PROTECTION: Dust safety masks are recommended when the dust concentration is more than 10 mg/m3. Respirator must be worn if exposed to dust. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).

EYE PROTECTION: Safety glasses with side-shields.

HAND PROTECTION: Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Impervious gloves. Request information on glove permeation properties from the glove supplier.

OTHER PROTECTIVE EQUIPMENT: Ensure that eyewash stations and safety showers are close to the workstation location. Lightweight protective clothing

ENGINEERING CONTROLS: Maintain air concentrations below occupational exposure standards.
# 9. Physical and Chemical Properties

## 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Blue - Grey Powder</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>N/D</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting point / freezing point (°C)</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling point/range (°C)</td>
<td>N/D - N/D</td>
</tr>
<tr>
<td>Flash Point, (°C)</td>
<td>999</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>N/D - N/D</td>
</tr>
<tr>
<td>Vapour Pressure, mmHg</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapour density</td>
<td>N/A</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>N/D</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Unknown</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not determined</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

## 9.2 Other information

- **VOC Content g/l:** No Information
- **Specific Gravity (g/cm³):** 7.109

## 10. Stability and Reactivity

### 10.1 Reactivity

No Information

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

### 10.4 Conditions to avoid

Keep from any possible contact with water.

### 10.5 Incompatible materials

Keep away from oxidising agents and strongly acid or alkaline materials. Strong oxidizing agents.


10.6 Hazardous decomposition products
Preparation reacts slowly with water resulting in evolution of hydrogen.

11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:
Oral LD50: N/D
Inhalation LC50: N/D

Irritation: Unknown
Corrosivity: Unknown
Sensitization: Unknown
Repeated dose toxicity: Unknown
Carcinogenicity: Unknown
Mutagenicity: Unknown
Toxicity for reproduction: Unknown

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested.

Data on individual components are tabulated below:

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Vapor LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-66-6</td>
<td>ZINC (DUST OR FUME)</td>
<td>&gt;2000 mg/kg, oral, rat</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>1314-13-2</td>
<td>ZINC OXIDE</td>
<td>15000 mg/kg, oral, rat</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Additional Information:
No Information

12. Ecological Information

12.1 Toxicity:
EC50 48hr (Daphnia): Unknown
IC50 72hr (Algae): Unknown
LC50 96hr (fish): Unknown

12.2 Persistence and degradability: Unknown

12.3 Bioaccumulative potential: Unknown

12.4 Mobility in soil: Unknown

12.5 Results of PBT and vPvB assessment:
The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.
12. Other adverse effects: Unknown

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>EC50 48hr</th>
<th>IC50 72hr</th>
<th>LC50 96hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-66-6</td>
<td>ZINC (DUST OR FUME)</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>1314-13-2</td>
<td>ZINC OXIDE</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
</tbody>
</table>

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: Dispose of in accordance with local regulations.

14. Transport Information

14.1 UN number: None
14.2 UN proper shipping name: Not Regulated
   Technical name: N/A
14.3 Transport hazard class(es): None
   Subsidiary shipping hazard: N/A
14.4 Packing group: N/A
14.5 Environmental hazards: No Information
14.6 Special precautions for user: Unknown
   EmS-No.: N/A
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Unknown

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

U.S. Federal Regulations: As follows -

CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA ‘Hazard Categories’ promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

None Known

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZINC (DUST OR FUME)</td>
<td>7440-66-6</td>
</tr>
<tr>
<td>ZINC OXIDE</td>
<td>1314-13-2</td>
</tr>
</tbody>
</table>

Toxic Substances Control Act:

All components of this product are either listed on the TSCA Inventory or are exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.
U.S. State Regulations: As follows -

New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product.

No NJ Right-To-Know components exist in this product.

Pennsylvania Right-To-Know

The following non-hazardous ingredients are present in the product at greater than 3%.

No PA Right-To-Know components exist in this product.

California Proposition 65:

⚠️ Warning

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADMIUM</td>
<td>7440-43-9</td>
</tr>
</tbody>
</table>

⚠️ Warning

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADMIUM</td>
<td>7440-43-9</td>
</tr>
</tbody>
</table>

International Regulations: As follows -

* Canadian DSL:

No Information

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. Other Information

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

Reasons for revision

No Information

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.