1. Chemical Product and Company Identification

Trade Name of this Product  Dynatex® 49643 Heat Transfer Compound
MSDS ID  DYN49643

Manufacturer
Accumetric, LLC
350 Ring Road
Elizabethtown, KY 42701

Phone Number
(270) 769-3385

Emergency Phone
CHEMTREC (800) 424-9300

Revision Date  11/22/2011

2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Weight %</th>
<th>ACGIH TLV</th>
<th>PEL</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc Oxide</td>
<td>1314-13-2</td>
<td>&lt; 75 %</td>
<td>2 mg/m3</td>
<td>5 mg/m3 dust</td>
<td>10 mg/m3</td>
</tr>
</tbody>
</table>

3. Hazard Identification

Emergency Overview
This product is a semi-solid that is insoluble in water. Direct eye contact may cause minor, short term irritation. Short term skin exposure is not expected to be irritating. Inhalation and ingestion are not anticipated routes of exposure during normal conditions of use.

Eye Exposure
This product is not expected to cause eye irritation under normal conditions of use. Symptoms of slight eye irritation may result when direct contact occurs, or when exposed to high list levels on poorly ventilated areas.

Skin Exposure
Short term skin contact is not expected to cause skin irritation. Prolonged or repeated direct exposure to the skin may result in symptoms of irritation and redness.

Inhalation
This product has low volatility and so is not expected to cause respiratory tract irritation during normal conditions of use. Exposure to high mist levels in poorly ventilated areas may
cause temporary irritation to the upper respiratory tract.

Although thermal decomposition is not an anticipated exposure route, both ACGIH and OSHA have established TWA exposure limits of 5 mg/m³ for zinc oxide fumes. ACGIH also has a STEL of 10 mg/m³ for fumes. Over exposure to fumes may produce symptoms known as Metal Fume Fever or "zinc shakes"; an acute, self-limiting condition without recognized complications. Symptoms of Metal Fume Fever include: chills, fever, muscular pain, nausea and vomiting.

**Ingestion**

Ingestion may cause slight stomach irritation and discomfort.

**Potential Chronic Health Effects**

No further data known.

**Existing Conditions Aggravated by Exposure**

No known applicable information.

**Carcinogenicity**

This product is not listed as a known or suspected carcinogen by IARC, OSHA or the NTP.

4. **First Aid Information**

**Eye Contact**

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. If symptoms persist, contact a physician.

**Skin Contact**

Remove product from the skin by washing with a mild soap and water. Contaminated clothing should be removed to prevent prolonged exposure. If product is injected under the skin, seek treatment immediately. If symptoms of exposure persist, contact a physician.

**Inhalation**

If signs or symptoms of overexposure occur, remove the employee to fresh air. If symptoms persist, seek medical attention.

**Ingestion**

If ingested, dilute stomach contents with two glasses of milk or water. (NOTE: Do NOT give anything by mouth to an unconscious person.) Do not induce vomiting without medical supervision. If vomiting occurs spontaneously, keep airway clear. If symptoms of ingestion persist, seek medical attention.

**Note to Physician**

No further data known.

5. **Fire Fighting Measures**

<table>
<thead>
<tr>
<th>Flash Point</th>
<th>500F</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP Method</td>
<td>COC</td>
</tr>
</tbody>
</table>
Extinguishing Media
In accordance with NFPA guidance, dry chemical, foam, or CO2 fire extinguishers are all acceptable. Note that while water fog extinguishers are also acceptable, do NOT apply a direct stream of water onto burning product because it may cause spreading and increase fire intensity.

Unusual Fire & Explosion Hazards
No further data known.

Firefighting Procedures and Equipment
Emergency responders in the danger area should wear bunker gear and self-contained breathing apparatus for fires beyond the incipient stage. See Section 8 of the MSDS for other PPE to be worn as conditions warrant.

6. Accidental Release Measures

Clean-up Measures
Important: As with any spill or leak, before responding ensure that you are familiar with the potential hazards and recommendations of the MSDS. Appropriate personal protective equipment must be worn. See Section 8 of this MSDS for PPE recommendations.

If possible, safely contain the spill with dikes or other spill response equipment appropriate for petroleum or organic material releases. Take measures to prevent spreading of product. Note that while product will ignite it will not readily burn. However, as a precaution eliminate ignition sources. Prevent from entering sewers or waterways. Large volumes may be transferred to an appropriate container for proper disposal. Small volumes or residues may be soaked up with absorbents. Spill response materials should be collected for proper disposal.

7. Handling and Storage

Handling
As with any industrial chemical, handle the product in a manner that minimizes exposure to practicable levels. Prior to handling, consult Section 8 of this MSDS to evaluate personal protective equipment needs. Open containers slowly to relieve any pressure. Follow all other standard industrial hygiene practices.

Empty containers may contain product residue. All safety precautions taken when handling this product should also be taken when handling empty drums and containers. Keep containers closed when not in use.

Product residue in empty containers is combustible but will not readily burn. NOTE however, that excessive heating or cutting of empty containers may create an ignition source sufficient to start a fire and in extreme cases, cause an explosion.

Storage
Protect product quality by storing indoors and away from extreme temperatures. Close all containers when not in use.
8. Exposure Controls and Personal Protection

Personal Protective Equipment
Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection.

Eye Protection
Wear eye protection appropriate to prevent eye exposure. Where splashing is not likely, chemical safety glasses with side shields are recommended. Where splashing may occur, chemical goggles or full face shield is recommended.

Skin Protection
Gloves are not normally needed during normal conditions of use. If health effects are experienced, oil or chemical resistant gloves such as butyl or nitrile are recommended.

Where splashing or soaking is likely, wear oil or chemical resistant clothing to prevent exposure.

Respiratory Protection
A respirator may be worn to reduce exposure to vapors, dust, or mist. Select a NIOSH/MSHA approved respirator appropriate for the type and physical character of the airborne material. A self-contained breathing apparatus is recommended in all situations where airborne contaminant concentration has not been confirmed to be below safe levels. Respirator use should comply with the OSHA Respirator Protection Standard found in 29 CFR 1910.134.

Engineering Controls
Normal general ventilation is expected to be adequate. It is recommended that ventilation be designed in all instances to maintain airborne concentrations at lowest practicable levels. Ventilation should at a minimum, prevent airborne concentrations from exceeding any exposure limits listed in Section 2 of this MSDS.

The user may wish to refer to 29 CFR 1910.1000(d)(2) and the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indicies" (Appendix C) for the determination of exposure limits of mixtures. An industrial hygienist or similar professional may be consulted to confirm that the calculated exposure limits apply.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Semi-solid</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>2.35</td>
</tr>
<tr>
<td>Color/ Appearance</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water</td>
</tr>
</tbody>
</table>

Note
The above information is not intended for use in preparing product specifications. Contact Accumetric LLC before writing specifications.

10. Stability and Reactivity

Incompatibilities
This product is incompatible with strong oxidizing agents.
Decomposition Products May Include
Thermal decomposition products are dependent on combustion conditions. A complex mixture of airborne solid, liquid, particulates and gasses may evolve when the material burns. Combustion byproducts may include: oxides of carbon, oxides of zinc, incompletely burned hydrocarbons as fumes and smoke.

Conditions to Avoid
Avoid contact with incompatible materials and exposure to extreme temperatures.

Hazardous Polymerization
Not likely to occur.

Chemical Stability
Stable

11. Toxicological Information

Eye Effects
No further toxicological data known.

Skin Effects
No further toxicological data known.

Oral Effects
No further toxicological data known.

Inhalation Effects
No further toxicological data known.

Other
No further data known.

12. Ecological Information

Ecotoxicological Information
This product has not been evaluated for ecotoxicity. As with any industrial chemical, exposure to the environment should be prevented and minimized wherever possible.

Environmental Fate
The degree of biodegradability and persistence of this product has not been determined.

13. Disposal Considerations

Waste Disposal
Ensure that collection, transport, treatment, and disposal of waste product, containers and rinsate complies with all applicable laws and regulations. Note that use, mixture, processing, or contamination of the product may cause the material to be classified as a hazardous waste. It is the responsibility of the product user or owner to determine at the time of
disposal, whether the product is regulated as a hazardous waste.

14. Transportation Information

DOT Road Shipment Information
Not subject to DOT.

15. Regulatory Information

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

Zinc oxide CAS# 1314-13-2

CERLCA Reportable Quantity
Any components listed below have been assigned a reportable quantity (RQ) by the Federal EPA. Releases of the product into the environment that exceed the RQ for a particular component must be reported to the National Response Center at 1-800-424-8802.

None

TSCA Section 8(b)
All of the components in this product are on the TSCA Inventory.

Ozone Depleting Substances
This product contains no ozone depleting substances as defined by the Clean Air Act.

Hazardous Air Pollutants
Any components listed below are defined by the Federal EPA as hazardous air pollutants.

16. Other Information

Disclaimer
The data contained herein is based upon information that Accumetric LLC believes to be reliable. Users of this product have the responsibility to determine that suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. All statements or suggestions are made without warranty, expressed or implied, regarding the accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.