

SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **Thermal Compound**
Product Code: None
SDS Manufacturer Number: Nor_237617

Other means of identification:

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: Not applicable.

Chemical manufacturer address and telephone number:

Manufacturer Name: Nordson EFD LLC
Address: 40 Catamore Boulevard
East Providence, Rhode Island 02914
USA
General Phone Number: +1-401-431-7000

Emergency phone number:

Emergency Phone Number: Chemtrec (Transportation) +1-800-424-9300 Outside USA +1-703-527-3887

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

GHS Pictograms:



Signal Word: WARNING.

GHS Class: Eye Irritation. Category 2.
Skin Irritation. Category 2.
Hazardous to the aquatic environment, short term, acute. Category 1.
Hazardous to the aquatic environment, long-term, chronic. Category 1.

Hazard Statements: H319 - Causes serious eye irritation.
H315 - Causes skin irritation.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary Statements: P264 - Wash hands thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 - Specific treatment (see ... on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P501 - Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Hazards not otherwise classified that have been identified during the classification process:

Eye: May cause eye irritation.
Skin: May cause skin irritation.
Inhalation: May be harmful if inhaled.
Ingestion: May be harmful if ingested.
Target Organs: Eyes. Skin. Respiratory system. Digestive system.
Aggravation of Pre-Existing Conditions: None generally recognized.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
Proprietary	No Data	10 by weight	
Zinc oxide	1314-13-2	90 by weight	215-222-5
Notes :	The Zinc Oxide in this product is in paste form and will not pose a dust hazard		

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact:	Immediately flush eyes with plenty of water for 15 to 20 minutes. Get medical attention, if irritation or symptoms of overexposure persists.
Skin Contact:	Immediately wash skin with soap and plenty of water. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed:

Other First Aid: Exposures to soldering fumes and vapors may be irritating to eyes, respiratory system, and skin.

Indication of immediate medical attention and special treatment needed:

Note to Physicians: None.

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

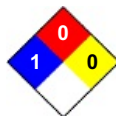
Suitable Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.
Unsuitable extinguishing media:	Not determined.
Unusual Fire Hazards:	None.

Special protective equipment and precautions for fire-fighters:

Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Fire Fighting Instructions:	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.

NFPA Ratings:

NFPA Health:	1
NFPA Flammability:	0
NFPA Reactivity:	0



SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Use proper personal protective equipment as listed in Section 8.

Environmental precautions:

Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.

Methods and materials for containment and cleaning up:

Methods for containment: Contain spills with an inert absorbent material such as soil or sand. Prevent from spreading by covering, diking or other means. Provide ventilation.

Methods for cleanup: Clean up spills immediately observing precautions in the protective equipment section. Place into a suitable container for disposal. Provide ventilation. After removal, flush spill area with soap and water to remove trace residue.

Reference to other sections:

Other Precautions: See Section 13 for disposal information.

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

- Handling:** Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing.
- Hygiene Practices:** Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

Conditions for safe storage, including any incompatibilities:

- Storage:** Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Zinc oxide :

- Guideline ACGIH:** TLV-STEL: 10 mg/m³ (R)
TLV-TWA: 2 mg/m³ (R)
- Guideline OSHA:** PEL-TWA: 15 mg/m³ Total particulate/dust (T)
PEL-TWA: 5 mg/m³ Respirable fraction (R)
PEL-TWA: 5 mg/m³

Appropriate engineering controls:

- Engineering Controls:** Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Individual protection measures:

- Eye/Face Protection:** Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
- Skin Protection Description:** Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.
- Respiratory Protection:** No personal respiratory protective equipment is normally required. When workers are facing airborne particulate/dust concentrations above the exposure limit they must use appropriate certified respirators.
- General Hygiene Considerations:** Workers should wash and change clothing following cleanup of a spill to prevent personal contamination.

PPE Pictograms:



SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

- Physical State:** Paste.
- Color:** White off-white or gray
- Odor:** Odorless.
- Odor Threshold:** Not determined.
- Boiling Point:** >400°F/ >204°C
- Melting Point:** Not determined.
- Specific Gravity:** 2.2 – 3.0 (H₂O=1)
- Solubility:** Insoluble
- Vapor Density:** Not determined.
- Vapor Pressure:** Not determined.
- Percent Volatile:** Not determined.
- Evaporation Rate:** <0.01 (butyl acetate=1)
- pH:** Not determined.
- Viscosity:** 40,000 – 1,500,000, 20,000 – 100,000 cP @ 1, 10 sec-1 shear @ 25°C
- Flash Point:** Not determined.
- Lower Flammable/Explosive Limit:** Not determined.
- Upper Flammable/Explosive Limit:** Not determined.
- Auto Ignition Temperature:** Not determined.
- Explosive Properties:** Not determined.
- Oxidizing Properties:** Not an oxidizer
- VOC Content:** Not determined.

SECTION 10 : STABILITY and REACTIVITY

Reactivity:

Reactivity: No data available

Chemical Stability:

Chemical Stability: Stable under recommended handling and storage conditions.

Possibility of hazardous reactions:

Hazardous Polymerization: Will not occur.

Conditions To Avoid:

Conditions to Avoid: Heat, flames and sparks

Incompatible Materials:

Incompatible Materials: Oxidizing agents.

Hazardous Decomposition Products:

Special Decomposition Products: Toxic gases such as zinc oxide fumes may be release in a fire

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Zinc oxide :

Eye: Administration into the eye - Rabbit Standard Draize test: 500 mg/24H [Mild] (RTECS)

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Environmental Stability: No data available for this product.

Bioaccumulative potential:

Bioaccumulation: No data available for this product.

Mobility in soil:

Mobility In Environmental Media: No data available for this product.

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal: Dispose of in accordance with Local, State, Federal and Provincial regulations.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name: Not regulated as hazardous material for transportation.

DOT UN Number: Not regulated as hazardous material for transportation.

IATA Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Zinc oxide)

IATA UN Number: UN3077

IATA Hazard Class: 9

IATA Packing Group: III

IMDG UN Number : UN3077

IMDG Shipping Name : Environmentally hazardous substance, solid, n.o.s. (Zinc oxide)

IMDG Hazard Class : 9

IMDG Packing Group : III

ADR UN Number: UN3077

ADR Shipping Name : Environmentally hazardous substance, solid, n.o.s. (Zinc oxide)

ADR Hazard Class: 9

ADR Packing Group : III

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

SARA: SARA 313 Listed, N982 Zinc Compounds(100%)

Zinc oxide :

TSCA Inventory Status: Listed

Canada DSL: Listed

EC Number: 215-222-5

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard: 1
HMIS Fire Hazard: 0
HMIS Reactivity: 0
HMIS Personal Protection: X

Health Hazard	1
Fire Hazard	0
Physical Hazard	0
Personal Protection	X

Other Information: This SDS is valid for all countries in North America, South America, China, Taiwan, India, Japan, Bangladesh, Pakistan, Malaysia and Sri Lanka

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SDS Revision Date: September 15, 2016

SDS Format:

MSDS Author: Actio Corporation

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