



# MATERIAL SAFETY DATA SHEET

Prepared in accordance with ISO 11014-1/ ANSI standard  
Z400.1-2004

MSDS Number: ND4128  
Revision Date: 8/25/2011

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** 917 Epoxy Laminating Adhesive - Part A

**Synonyms:** None

**Use of the Substance/Preparation:** Adhesive  
**Supplier:**

ND Industries, Inc.  
1893 Barrett Road  
Troy, Michigan 48084  
Tel: (248) 288-0000  
Fax: 248) 288-0022

**Emergency Telephone Number:** 24 hr. EMERGENCY CHEMTREC  
1-800-424-9300

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW- WARNING:

Causes eye and skin irritation. May cause respiratory tract irritation. May cause allergic skin reaction. Heated material can cause thermal burns.  
Eye, skin, and inhalation.

### Principle Routes of Exposure:

### POTENTIAL HEALTH EFFECTS:

#### Eye Contact:

Causes eye irritation.

#### Skin Contact:

Causes skin irritation. May cause sensitization by skin contact.

#### Inhalation:

May cause respiratory tract irritation.

#### Ingestion:

Not expected to be a route of entry under normal use conditions. Ingestion may cause irritation of gastrointestinal tract.

#### Carcinogenic Effects:

No known significant effects or critical hazards.

#### Target Organ Effects:

Skin and eyes.

#### Medical Conditions Aggravated by Exposure:

Pre-existing skin disorders may be aggravated by prolonged or repeated contact.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	EC Number	Weight %	Classification
Epoxy Resin	25068-38-6	500-033-5	60-70	Xi, N; R36/38-43-51/53

#### 4. FIRST AID MEASURES

<b>Skin Contact:</b>	Wash with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes, and launder before reuse. If irritation develops or persists seek medical attention.
<b>Eye Contact:</b>	Immediately flush eyes with water for at least 15 minutes, occasionally lifting upper and lower eyelids. Seek medical attention.
<b>Inhalation:</b>	Remove person to fresh air. If adverse health effect persist, or are severe, seek medical attention.
<b>Ingestion:</b>	Wash mouth out with water. Give small amounts of water to drink. Do not induce vomiting unless directed by a medical professional to do so. Seek medical attention.
<b>Notes to Physician:</b>	Treat symptomatically. Contact poison treatment specialist if large quantities have been ingested or inhaled.

#### 5. FIRE AND IGNITION INFORMATION

<b>Flash Point</b>	251 °C(484 °F) Pensky-Martens Closed Cup ASTM D 93
<b>Explosion Limits in Air – Upper (%):</b>	Not established
<b>Explosion Limits in Air – Lower (%):</b>	Not established
<b>Auto-ignition Temperature:</b>	Not established
<b>Extinguishing Media:</b>	Avoid use of water as an extinguishing agent. Water may spread fire. Use extinguishing agent suitable for surrounding the fire.
<b>Special Protective Equipment for Firefighters:</b>	Fire fighters should wear full protective equipment and self contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode.
<b>Specific Hazards:</b>	Temperatures under fire conditions may cause containers to rupture violently. Cool containers with water mist or fog. Toxic or flammable vapors or corrosive gasses cannot be ruled out under fire conditions.
<b>Hazardous Decomposition and/or Combustion Products:</b>	Carbon oxides.
<b>Risk of Dust Explosion:</b>	Not applicable.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Only trained personnel should clean up a spill. Ventilate spill area. Eliminate ignition sources. Use proper personal protective equipment.
<b>Methods for Cleaning Up:</b>	Absorb with material such as sand, or polypropylene. Sweep or vacuum spilled material, and place in appropriate waste container for disposal.
<b>Environmental Precautions:</b>	Do not permit this material to enter sewers, drains or other waterways.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Use with adequate ventilation. Avoid contact with skin and eyes. Avoid breathing vapor. Use appropriate personal protective equipment for the job. Use proper hygiene; wash hands after using this product, before eating, drinking, smoking or using the lavatory.
<b>Storage:</b>	Store in a cool, well ventilated area, away from direct sunlight. Keep container tightly closed when not in use. Keep container dry. Keep

away from ignition sources.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE LIMITS

No exposure limits on product itself.

Exposure limits for those components with exposure limits are stated below.

None

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

TLV: Threshold Limit Value

TWA: Time Weighted Average

US ACGIH: United States American Conference of Governmental Industrial Hygienists

US OSHA: United States Occupational Safety and Health Administration

### ENGINEERING CONTROLS

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapors, or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep exposures below any recommended or statutory limits.

### PERSONAL PROTECTIVE EQUIPMENT

#### **Respiratory Protection:**

Use properly fitted, NIOSH approved respirator if engineering controls are inadequate to maintain exposures below recommended limits, or when risk assessment indicates respiratory protection is necessary.

#### **Hand Protection:**

Use chemical resistant, impervious gloves to avoid contact with hands.

#### **Eye Protection:**

Use approved safety eyewear to avoid splashes, mists, gases, or dusts.

#### **Skin and Body Protection:**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear viscous liquid.
<b>Odor:</b>	Slight epoxy odor.
<b>pH</b>	Not established.
<b>Vapor Pressure:</b>	0.03 mbar @ 77 °C(171 °F).
<b>Boiling Point/Range:</b>	Greater than 260 °C(500 °F) .
<b>Melting Point/Range:</b>	Not applicable.
<b>Water Solubility:</b>	Negligible.
<b>Density:</b>	Not established.
<b>Specific Gravity:</b>	1.17.
<b>% Volatile (by Volume):</b>	Nil
<b>Evaporation Rate:</b>	Not established.
<b>Viscosity:</b>	Not established.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable.
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Mechanical Sensitivity (shock):</b>	None.

<b>Conditions to Avoid:</b>	Oxidizing agents, strong acids and bases. Avoid high temperatures, above 300°F. Avoid unintended contact with water and amines.
<b>Hazardous Decomposition and/or Combustion Products:</b>	Oxides of carbon, phenolics, water, various oxidized and non-oxidized hydrocarbons.
<b>Static Discharge Effects:</b>	Avoid static discharge. Use proper bonding and grounding techniques when using this product.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY

<b>Oral LD50:</b>	30,000 mg/kg (rat).
<b>Inhalation LC50:</b>	No data available on the product itself.
<b>Dermal LC50:</b>	> 1,200 mg/kg (rat).
<b>Eye Irritation:</b>	No data available on the product itself.
<b>Skin Irritation:</b>	No data available on the product itself.

### CHRONIC TOXICITY

<b>Carcinogenic Effects:</b>	Not classified.
<b>Mutagenic Effects:</b>	No data available on the product itself.
<b>Reproductive Toxicity:</b>	No data available on the product itself.
<b>Sensitizing Effects:</b>	May cause sensitization by skin contact.
<b>Synergistic Materials:</b>	No data available on the product itself.

## 12. ECOLOGICAL INFORMATION

*Information given is based on data on the components and the toxicology of similar products.*

<b>Aquatic Toxicity:</b>	No data available on the product itself. Do not permit this material to enter sewers, drains or other waterways. Contains epoxy constituents that are toxic to aquatic environment, and may cause long term adverse effects in aquatic environment.
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### ENVIRONMENTAL FATE

<b>Mobility:</b>	No data available on the product itself.
<b>Bioaccumulation:</b>	No data available on the product itself.
<b>Persistence / Degradability:</b>	No data available on the product itself.
<b>Distribution to Environmental Compartments:</b>	No data available on the product itself.

## 13. DISPOSAL CONSIDERATIONS

**Disclaimer:** Information in this section pertains to the product as shipped in its intended composition as described in Section 2 of this MSDS. Contamination or processing may change waste characteristics and requirements. Regulations may also apply to empty containers, liners or rinsate. State/provincial and local regulations may be different from federal regulations.

**RCRA Classification (40 CFR 261):** The pure product, when discarded may not be a hazardous waste. It is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose of in accordance with all local, state, and federal regulations.

**Unused and Uncontaminated Product:** Dispose of via a licensed waste disposal contractor.

#### 14. TRANSPORTATION INFORMATION

**CFR:**

**Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S.** (reaction product: bisphenol-A-(epichlorohydrin) epoxy resin (number average molecular weight= 700), Epichlorohydrin formaldehyde-phenol polymer; epoxy resin (number average molecular weight= 550))

**Hazard Class:** 9

**Identification Number:** UN3082

**Packing Group:** III

#### 15. REGULATORY INFORMATION

**Hazard Classification**

**United States – OSHA (29 CFR 1910.1200):** This product is classified as hazardous under OSHA.

**International Inventories**

**All components of this product are listed on or exempt from the following inventories:**

- (yes) - Domestic Substances List (DSL)
- (yes) - European Inventory of Existing Commercial Substances (EINECS)
- (yes) - United States Toxic Substances Control Act (TSCA) Inventory

**U.S. Federal Regulations**

**TSCA 12(b) Export Notification:** None

**Clean Air Act amendments of 1990 (CAA, Section 11240: CFR 82):** None

**Clean Water Act (CWA, 40 CFR 116):** None

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, 40 CFR 302):** None

**Superfund Amendments and Reauthorization Act, Title III (SARA):**

**SARA Section 302 (40 CFR 355) Extremely Hazardous Substances:** None

**SARA Section 311/312 (40 CFR 370) Hazard Category:** Immediate acute.

**SARA Section 313 (40 CFR 372) Toxics Release Inventory:** None

**Pharmaceutical Information:** Not permitted.

**U.S. State Regulations**

**California Proposition 65:** This product contains, or may contain, chemical(s) known to the state of California to cause cancer or other reproductive harm.

**SCAQMD VOC Limits:** Compliant

#### 16. OTHER INFORMATION

**HMIS Rating**

**HMIS Index:** \*- chronic, 0 – Minimal, 1 – slight, 2- moderate, 3 – serious, 4 –severe

**Health:** 2

**Flammability: 1**

**Physical Hazard: 0**

**Additional Contacts:**

**Prepared by:** ND Industries, Inc. – Environmental, Health, and Safety Department

**Revision Date:** n/a

**Previous Revision Date:** n/a

**Reasons for Revision:** n/a

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