Safety Data Sheet

NORTHERN MANUFACTURING

25 Bridle Lane Westborough, MA 01581

Version 7

Issue Date 29-Jun-2015 Rev Date 07-May-2018

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

Product Identifier

Product name EPOXY ADHESIVE PART A

Other Means of Identification

Product Code NOMAD-PART A Product Technology Epoxy A side

None

Epoxy A side. FOR INDUSTRIAL USE ONLY.

Restrictions on use: Do not use this product for any use other than intended

Supplier Address

Northern Manufacturing 111 Royal Group Crescent Woodbridge, ON. Canada L4H 1X9

Company Phone Number Emergency Telephone 508-836-0280 (8AM - 5PM EST) (M-F) Chemtrec 1-800-424-9300 (24 Hours)

Chemtrec International Phone +1 703 527-3887

2. Hazards Identification

Classification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS). This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1

EMERGENCY OVERVIEW

WARNING

Hazard Statements

Causes skin irritation Causes serious eye irritation May cause an allergic skin reaction



Appearance Viscous Off white

Physical State Paste

Odor Mild

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves, protective clothing, eye protection, face protection Avoid breathing dust, fumes, or vapors Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

Call a POISON CENTER or doctor/physician if you feel unwell

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water

Take off contaminated clothing and wash before reuse

If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/regional/international regulations

Hazards Not Otherwise Classified (HNOC)

Other Information

Toxic to aquatic life with long lasting effects 61.69% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/Information on Ingredients

Chemical FamilyEpoxy A SideChemical natureEpoxy resin mixture.

Chemical Name	CAS No	Weight-%	Trade secret
Bisphenol A diglycidyl ether resin	25068-38-6	20 - 40	*
Proprietary resin	Proprietary	1 - 10	*

^{*} The exact percentage (concentration) of composition may have been withheld as a trade secret.

4. First Aid Measures

FIRST AID MEASURES

General Advice Use first aid treatment according to the nature of the injury. For further assistance, contact

your local Poison Control Center. In case of accident or unwellness, seek medical advice

immediately (show directions for use or safety data sheet if possible).

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If

eye irritation persists: Get medical advice/attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if

irritation develops and persists.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

Not an expected route of exposure. If swallowed, do not induce vomiting: seek medical Ingestion

advice immediately and show this container or label.

Self-Protection of the First Aider First Aider: Pay attention to self-protection. Use personal protective equipment as required.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms No information available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to Physicians Treat symptomatically.

5. Fire-Fighting Measures

Suitable Extinguishing Media

Use CO2, dry chemical, or foam

Unsuitable Extinguishing Media Caution: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising From the Chemical

Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water ways. Dike for water control.

Hazardous Combustion Products Irritating or toxic substances may be emitted upon burning,

combustion or decomposition. See Section 10 Hazardous

Decomposition Products for additional information.

Explosion Data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Ventilate affected area. Extremely slippery when spilled.

Other Information Use personal protective equipment as required.

For Emergency Responders Use personal protective equipment as required.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological Information. Do not allow into any sewer, on the

ground or into any body of water.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and Storage

Precautions for Safe Handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store and handle

away from heat, flames and oxidizing materials.

Incompatible Materials Strong oxidizing agents. Strong acids. Strong bases.

8. Exposure Controls/Personal Protection

Control Parameters

Exposure Guidelines

Appropriate Engineering Controls

Engineering Controls Showers

Eyewash stations Ventilation systems

Individual Protection Measures, Such As Personal Protective Equipment

Eye/Face Protection Splash Goggles.

Skin and Body ProtectionWear protective gloves and protective clothing.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical State Paste Appearance Viscous

AppearanceViscousOdorMild

Color Off white Odor Threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

pH No information availableMelting Point/Freezing Point No information available

Boiling Point/Boiling Range > 250 °C **Flash Point** > 220 °C

Evaporation RateNo information available **Flammability (Solid, Gas)**No information available

Flammability Limits in Air

Upper Flammability Limits
Lower Flammability Limit
Vapor Pressure
Vapor Density

No information available
No information available
No information available

Specific Gravity 1.68
Water Solubility Negligible

Solubility in Other SolventsNo informationavailablePartition CoefficientNo informationavailableAutoignition TemperatureNo informationavailableDecomposition TemperatureNo informationavailable

Kinematic Viscosity 464286 cSt

Dynamic Viscosity780000 cps @ 25° CExplosive PropertiesNot an explosiveOxidizing PropertiesNo information available

Other Information

Softening Point No information available Molecular Weight No information available

VOC Content (%) <1g/L

Density 14.0 pounds/gallon
Bulk Density No information available

10. Stability and Reactivity

Reactivity

No data available

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

hazardous polymerization None under normal processing.

Conditions to Avoid

Keep out of reach of children. Extremes of temperature and direct sunlight. Mixture with or exposure to incompatible materials.

Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products

Carbon monoxide. Carbon Dioxide (CO2). Aldehydes. Aromatic hydrocarbons. May emit toxic fumes under fire conditions.

11. Toxicological Information

Information on Likely Routes of Exposure

Product Information The product has not been tested

Inhalation Remove to fresh air.

Eye Contact Vapor may cause irritation. Avoid contact with eyes. Contact with eyes may cause irritation.

Skin Contact Avoid contact with skin. May cause irritation. Repeated or prolonged skin contact may

cause allergic reactions with susceptible persons.

Ingestion Not an expected route of exposure. May be harmful if swallowed.

Chemical Name	Oral LD50 (Rat)	Dermal LD50 (Rabbit)	Inhalation LC50
Bisphenol A diglycidyl ether resin 25068-38-6	= 11400 mg/kg (Rat)	-	-
Proprietary resin	= 4500 mg/kg (Rat)	-	-

Information on toxicological effects

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin. Serious eye damage/eye irritation Irritating to eyes.

Irritation Irritating to eyes and skin.

Sensitization May cause sensitization of susceptible persons.

Germ Cell Mutagenicity No information available.

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA,

IARC or NTP.

Reproductive Toxicity
STOT - Single Exposure
STOT - Repeated Exposure
No information available.
No information available.

Chronic Toxicity Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and

sensitization of susceptible persons.

Aspiration Hazard No information available.

Numerical Measures of Toxicity - Product Information

Unknown Acute Toxicity 61.69% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 9679 mg/kg

12. Ecological Information

Ecotoxicity

No information available

66.27998% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and Degradability

No information available

Other Adverse Effects

No information available

13. Disposal Considerations

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated Packaging Do not reuse container.

14. Transport Information

DOT Not regulated

ICAO (air)

IATA

UN/ID no UN3082

Proper Shipping Name Environmentally Hazardous substance Liquid N.O.S. (Bisphenol A epoxy resin)

Hazard Class 9
Packing group III

Special Provisions A197 - Not restricted provided that the net quantity in any receptacle does not exceed 5 Kg

or 5 L and the packaging meets defined standards.

IMDG

UN/ID no UN3082

Proper Shipping Name Environmentally Hazardous Substance Liquid N.O.S. (Bisphenol A epoxy resin)

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Packing group III

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or 5 L and the packaging meets defined standards.

Marine pollutant This product contains a chemical which is listed as a marine pollutant according to

IMDG/IMO

15. Regulatory Information

International Inventories

TSCA All components of this product are either exempt or included on the TSCA Inventory in

compliance with the Toxic Substances Control Act.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health HazardYesChronic Health HazardYesFire HazardNoSudden Release of Pressure HazardNoReactive HazardNo

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

The following chemicals may be contained in this product in de minimis amounts not required for listing in section 3. However, these chemicals do appear on some state Right-to-Know (RTK) and/or other hazardous substance lists. Please check your state's listings for more information.

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65	
Titanium dioxide - 13463-67-7	Carcinogen	
Glycidyl phenyl ether - 122-60-1	Carcinogen Male Reproductive	
Epichlorohydrin - 106-89-8	Carcinogen Male Reproductive	
Silicon dioxide - 14808-60-7	Carcinogen	

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

HMIS Health Hazards 2 Flammability 1 Physical Hazards 0 Personal Protection X

Prepared byComplianceIssue Date29-Jun-2015Revision Date07-May-2018

Revision note

No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet