

MATERIAL SAFETY DATA SHEET

Polymer Innovations, Inc.
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SECTION 1: PRODUCT IDENTIFICATION

Product Name: NMO 2-2 Glass paste

Issue or revision date: 3/22/12

Chemical Family: Glass paste

SECTION 2: HAZARDOUS INGREDIENTS

<u>Component</u>	<u>CAS#</u>	<u>Quantity</u>	<u>Threshold level</u>	<u>Carcinogen</u>
Mixed tertiary terpene alcohols	8000-41-7	>45%	Not established	no listing
Aluminum oxide Al ₂ O ₃	1344-28-1	<15%	10 mg/m ³	no listing
Boron Oxide (B ₂ O ₃)	1303-86-2	<15%	10 mg/m ³	no listing
Silicon Dioxide (amorphous)	7631-86-9	<25%	10 mg/m ³	*
Other non-regulated materials		<10%	Not established	no listing

- IARC and NTP studies conclude there is sufficient evidence for the carcinogenicity of respirable crystalline silica in experimental animals and it could reasonably be anticipated to be a carcinogen for humans. It should be noted the silica and other inorganic components in this paste are trapped in the amorphous state in a glass powder. Further this glass powder is contained in a paste composition which is unlikely under normal use conditions to result in its inorganic components being respirable.

SECTION 3: HEALTH HAZARD DATA

Summary of Acute Hazards: May cause inhalation, eye and skin irritation.

Primary Routes of Exposure: Inhalation, eye and skin contact.

Summary of Chronic Hazards: No appropriate human or animal data are available on the chronic health effects from prolonged or repeated exposure to this material.

SECTION 4: FIRST AID MEASURES

Inhalation: If overcome by exposure to vapors, remove victim to fresh air and obtain medical attention if breathing difficulty persists beyond 15 minutes.

Eye Contact: Immediately rinse with clean water for 20 - 30 minutes. Obtain emergency medical attention if pain or redness persists.

Skin Contact: Remove contaminated clothing as needed and wash skin thoroughly with mild soap and water.

Ingestion: Do not induce vomiting and get prompt medical attention.

SECTION 5: PHYSICAL DATA

Appearance: Viscous off white paste

Odor: Mild musty

Boiling Point: 215 °C (lowest initial for mixture)

Specific Gravity: Greater than 1.0

Vapor Pressure: < 5 mm HG @20 °C (highest of mixture)

Vapor Density (air=1): Not available

Solubility in water: Negligible

pH: not applicable

Percent Volatiles: Less than 70 wt %

Freezing Point: Not available

SECTION 6: FIRE AND EXPLOSION HAZARD DATA

Flash Point: 190 °F TCC (lowest for mixture)

Auto-ignition Temperature: Not established

Lower Explosive limit: Not established

Upper Explosive limit: Not established

Fire and Explosion Hazards: Combustible paste/liquid, can form flammable mixtures at temperatures at or above the flash point.

Extinguishing Media: Dry chemical, CO₂, water fog, water spray.

Special Fire Fighting Procedures: No special requirements.

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SECTION 7: HANDLING AND STORAGE PRECAUTIONS

General: Use good personal hygiene practices. Wash hands with soap and water before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing and wash thoroughly before reuse.

Respiratory: No special requirements under normal use conditions with good ventilation. At higher concentrated levels a NIOSH or MSHA approved respirator should be used with organic vapor cartridge.

Eye: Avoid contact with eyes. Wear safety glasses as needed if material could splash.

Skin: Avoid prolonged or repeated contact with skin. Wear chemical resistant gloves as required to minimize skin contact.

Storage: Avoid temperature extremes. 34 °F (1 °C) to 120 °F (49 °C) recommended minimum and maximum storage temperatures.

SECTION 8: REACTIVITY DATA

Hazardous Polymerization: Not expected to occur

Hazardous Decomposition products: May generate CO, CO₂, H₂O, and unidentified organic compounds during thermal decomposition or combustion.

Materials to avoid: Substances not compatible with ordinary organics such as strong oxidizers will not be compatible with this product.

Conditions to avoid: Avoid temperature extremes as noted under storage.

SECTION 9: SPILL AND DISPOSAL INFORMATION

Spill: Material should be contained and absorbed with wipes.

Disposal: Dispose of waste in accordance with all applicable Federal/ Provincial / State and local regulations regarding disposal

SECTION 10: TRANSPORTATION INFORMATION

DOT Hazardous Material Proper Shipping Name: Not regulated.

SECTION 11: HAZARD RATING AND LABELING INFORMATION

NFPA: Health = 2 Flammability = 1 Reactivity = 1

HMIS: Health = 2 Flammability = 1 Reactivity = 1

SECTION 12: REGULATORY INFORMATION

Toxic Substance Control Act (TSCA): All ingredients are listed or excluded by TSCA.

Superfund Amendments and Reauthorization Act of 1988 (SARA): Does not contain significant amounts of materials subject to reporting requirements

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA): Does not contain significant amounts of materials subject to reporting requirements.

SECTION 13: GENERAL COMMENTS

Abbreviations:

NISH: National Institute for Occupational Safety and Health **NFPA:** National Fire Protection Association

MSHA: Mine Safety and Health Administration **TSCA:** U. S. Toxic Substances Control Act chemical substance inventory

HMIS: Hazardous Material Information System (National Paint and Coatings Association).

The information contained herein relates only to the specific material identified. Polymer Innovations Inc., believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty expressed or implied, is made as to the accuracy, reliability, or completeness of the information. Polymer Innovations Inc., urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.