

MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 1 Flammability = 0 Reactivity = 0
HMIS RATING: Health = 1 Flammability = 0 Reactivity = 0

SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION (567N-26B)**Manufacturer's Name:** HILLYARD INDUSTRIES**Product Name:** NORTH STAR☆**Address:** 302 North Fourth Street
St. Joseph, MO 64502**Date Prepared:** October 7, 2013 (version 3)**Prepared by:** Regulatory Affairs Department**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)**Other information calls:** (816) 233-1321 (Ext. 8285)<http://www.hillyard.com>***SECTION II -- INGREDIENTS/IDENTITY INFORMATION****Components****(Specific Chemical Identity:**

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Water	7732-18-5	N/E	N/E	N/A	---
Acrylic Copolymer Emulsion	Unknown to Hillyard	N/E	N/E	N/A	---
Polythene Emulsions	9010-77-9	N/E	N/E	N/A	---
Polypropylene Wax Emulsion	Unknown to Hillyard	N/E	N/E	N/A	2-4
Diethylene Glycol Monoethyl Ether**	111-90-0	N/E	N/E	N/A	1-3
Tributoxyethyl Phosphate**	78-51-3	N/E	N/E	N/A	1-3
Zinc Oxide ⁽¹⁾	1314-13-2	5mg/m ³	5mg/m ³	N/A	<1

(1) Regulated by OSHA: CA, ID, FL, IL, MA, MN, NJ, PA, RI, WA

**This product contains the following chemicals subject to reporting requirements of SARA Title III, Section 313: Diethylene Glycol Monoethyl Ether and Tributoxyethyl Phosphate.

NORTH STAR☆ meets the CARB VOC requirements.

N/A= Not Applicable N/E= Not Established

SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: >200°F ***Specific Gravity (H₂O) = 1):** 25°C = 1.03 ***Density =** 8.59 lbs/gl
***Vapor Pressure (mm Hg.):** 17.6 ***Percent Volatile by Volume (%):** 77 - 79%
***Vapor Density (AIR = 1):** 1.3 **Evaporation Rate (ethyl ether = 1):** Slower than 1
Solubility in Water: Complete ***Appearance and Odor:** Milky solution; ammonia odor
pH (concentrate) = 8.0 - 9.0

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA*Flash point:** >200° (Tag Closed Cup) **Flammable Limits:** LEL = N/A UEL = N/A**Extinguishing Media:** Not applicable**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.***Unusual Fire and Explosion Hazards:** Material can spatter above 100°C/212°F. Polymer film can burn.**SECTION V -- PHYSICAL HAZARDS****Stability:** Stable**Conditions to Avoid:** Freezing. If frozen, product is unusable.**Incompatibility (Materials to Avoid):** None known to Hillyard**Hazardous Decomposition Products or Byproducts:** None known to Hillyard**Hazardous Polymerization:** Will not occur.**SECTION VI -- HEALTH HAZARD DATA****Routes of entry:** Inhalation? Yes Skin? Yes Ingestion? Yes**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. According to Primary Skin Irritation Test (FHSA), product is not an irritant; prolonged contact may cause moderate skin irritation in sensitive individuals. Eye Irritation Test (FHSA), not an eye irritant; however, prolonged exposure may cause conjunctivae irritation in sensitive individuals. Overexposure to high airborne levels or liquid splashes of Dipropylene glycol methyl ether may cause eye, nose, throat, and skin irritation. Harmful if swallowed.
2. None known to Hillyard Industries.

HEALTH HAZARD DATA (CONTINUED):**Chemical listed as Carcinogen or Potential Carcinogen:****National Toxicology Program** = No **I.A.R.C. Monographs** = No **OSHA** = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

Signs and Symptoms of Exposure: Prolonged eye contact with concentrate can cause slight irritation; test subjects showed eyes cleared up in 48 hours. Prolonged skin contact with concentrate can cause moderate skin irritation but test subjects recovered by day 8.**Medical Conditions Generally Aggravated by Exposure:** Dipropylene glycol methyl ether may aggravate obstructive airway diseases (persons with impaired pulmonary functions) and liver and kidney problems. Persons with pre-existing skin disorders may be more susceptible to irritation.**Emergency and First Aid Procedures:** **Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes. **Skin:** Immediately flush skin with plenty of water for 15 minutes. **Ingestion:** If swallowed induce vomiting immediately. Immediately consult medical personnel. **Inhalation:** Remove to fresh air. If discomfort persists, get medical attention.**SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE****Steps To Be Taken In Case Material Is Released Or Spilled:** Pick up with mop or wet vac and wash away with water. Absorb large spills with oil-dri or similar inert absorbent. Collect material for proper disposal.**Waste Disposal Method:** Wash small quantities down sewer with large amount of water. Contains ammonia which may be toxic to aquatic life. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water. Large spills should be picked up with wet vac or absorbent material. Landfill or incinerate solids. Dispose of liquid per local, state or federal regulations.**Precautions To Be Taken In Handling And Storing:** Freezing of product may rupture container. Product shelf life is best retained by storage at 45 - 100°F temperature.**Other Precautions:** Inhalation exposure to spray mist should be maintained at less than 10 mg/m³ per eight hours exposure (TWA limit established for nuisance dust. USE WITH ADEQUATE VENTILATION. Avoid breathing vapors or spray mist. Open windows and doors, use exhaust fans or other means **to insure fresh air entry during application and drying**. Refer to OSHA Standard 29 CFR 1910.94 for technical guidelines on keeping air contamination below acceptable exposure limits. Keep container closed when not in use.**SECTION VIII -- CONTROL MEASURES****Respiratory Protection (Specify Type):** Wear appropriate, properly fitted respirator (NIOSH or MSHA approved) unless air monitoring demonstrates vapor or mist levels are below applicable limits.**Ventilation:** Good ventilation for public areas is 10 air changes per hour.**Local Exhaust** = Recommended **Mechanical (General)** = Recommended **Special** = N/A **Other** = N/A**Protective Gloves:** Prolonged or repeated contact use solvent-resistant rubber or neoprene gloves**Eye Protection:** None needed for normal use**Other Protective Clothing or Equipment:** Protective clothing such as uniforms or coveralls.**Work / Hygienic Practices:** Wash contaminated clothing before reuse (including shoes).**SECTION IX - TRANSPORTATION INFORMATION****DOT SHIPPING DESCRIPTION ON BILL OF LADING:****Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no.**Proper shipping name:** Liquid Floor Wax & Polish**UN No.:** not applicable; **Limited Qty.:** not applicable; **Hazard Class:** not applicable.**Labels required:** not required **DOT Exception:** not applicable**EPA Hazardous waste number / code:** not listed**Hazardous waste characteristics:****Ignitability** = not applicable; **Corrosivity** = not applicable; **Reactivity** = not applicable.**DISCLAIMER OF WARRANTIES****NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

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