MATERIAL SAFETY DATA SHEET HYDRO ACTIVE® SEALFOAM NF Rev. 12/08

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: HYDROACTIVE ® SEALFOAM NF

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SECTION 2: HAZARDS IDENTIFICATION (ERG CODE 171)

EMERGENCY OVERVIEW:

APPEARANCE AND ODOR: Amber colored liquid with a sweet odor.
REACTIVE: Product will polymerize when exposed to water.

POTENTIAL HEALTH EFFECTS

EYES: Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor or aerosol may cause irritation with symptoms of burning and tearing. Product may polymerize in eye.
CHRONIC EYE: Prolonged vapor contact may cause conjunctivitis
SKIN:
Causes irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Contact with skin can cause product to polymerize. Cured material is difficult to remove. Contact with TDI can cause discoloration.
CHRONIC SKIN: Prolonged contact can cause reddening, swelling, rash, and, in some cases, skin sensitization. Animal tests on TDI indicate skin contact alone may lead to an allergic respiratory reaction.
INGESTION:
May polymerize in airway and cause suffocation. May cause irritation; Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.
Carcinogenicity: TDI component :Not carcinogenic to humans as defined by OSHA and ACGIH
TDI component: IARC:Group 2B Possible carcinogen. NTP: Anticipated Carcinogen

SECTION 2: HAZARDS IDENTIFICATION (Continued)

INHALATION:
Diisocyanate vapors or mist can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction).

CHRONIC INHALATION
As a result of previous repeated overexposures or a single large dose, certain individuals may develop sensitization to diisocyanates (asthma or asthma-like symptoms).

SECTION 3: HAZARDOUS INGREDIENTS

Name	CAS NO.	% Wt/Wt
Toluene Diisocyanate mixed isomers as below:	26471-62-5	
2,4 -Toluene Diisocyanate	584-84-9	3%-7%
2,6 -Toluene Diisocyanate	91-08-7	0.5%-1.5%

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush eyes gently with water for at least 15 minutes, while holding open upper and lower lids. Product will react with moisture in eye! Immediately seek medical attention.

SKIN: Remove contaminated clothing. Blot or brush the product away, prior to washing the exposed area with water. The cured product on the skin is rarely a cause of irritation (If it does, seek medical attention). The process of trying to remove the cured product may cause irritation.

SECTION 4: FIRST AID MEASURES continued

INGESTION: SEEK IMMEDIATE MEDICAL ATTENTION! DELAYED TREATMENT MAY RESULT IN FATALITY. Do Not Induce Vomiting. Rinse mouth out with water. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

INHALATION: Move to an area free from further exposure. Get medical attention immediately. Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening.

SECTION 5: FIRE-FIGHTING MEASURES (ERG CODE 171)

FLASH POINT & METHOD USED:

ASTM D93 225F (107˚C)

EXTINGUISHING MEDIA:
Dry Chemical, CO_2, Foam or Water Fog

SPECIAL FIRE FIGHTING PROCEDURES:
Do not scatter material with high pressure water streams. Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate can be extremely dangerous Closed container may forcibly rupture under extreme heat or when contents are contaminated with water (CO2 formed). Use cold-water spray to cool fire-exposed containers to minimize the risk of rupture. Large fires can be extinguished with large volumes of water applied from a safe distance, since reaction between water and hot diisocyanate can be vigorous.

HAZARDOUS DECOMPOSITION PRODUCTS:
Fire or intense heat will decompose the product into CO_2, CO, Hydrogen Cyanide, Oxides of Nitrogen, Isocyanates, Isocyanic Acid, and dense black smoke.

SECTION 6: ACCIDENTAL RELEASE MEASURES (ERG CODE 128)

ACCIDENTAL RELEASE MEASURES:
Where exposure level is known, wear approved respirator suitable for the level of exposure. If exposure level is unknown, wear approved, positive pressure, self-contained respirator. In addition to the protective clothing in section 8, wear impermeable boots.

CLEAN-UP PROCEDURES:
Remove sources of ignition. Stop and contain / dam the spill. Absorb spill with inert material (vermiculite / diatomaceous earth). Shovel material into appropriate container for disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING:
Do not breathe vapors or mists. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Wear respiratory protection if material is heated, sprayed, used in confined space, or if the exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent overexposure from inhalation. This material can produce asthmatic sensitization upon either single inhalation exposures to lower concentrations. Individuals with breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or spray mist. Avoid skin and eye contact. Wash thoroughly after handling. Keep product away from heat and open flame.

STORAGE:
Keep in manufacturer's sealed nitrogen packed pail. Maintain storage temperatures between 65˚F to 86˚F (18˚C to 30˚C).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The sum of 2,4 and 2,6 isomer concentration should not exceed the guideline limits

2,4-Toluene Diisocyanate (584-84-9)
- US. OSHA PEL: 0.02 ppm STEL vacated; 0.005 ppm TWA vacated
- US. ACGIH TLVs:
  - TWA: 0.005 ppm
  - STEL: 0.02 ppm
  - Group A4: Not Classifiable as human carcinogen.
  - Respiratory Sensitizer

2,6-Toluene Diisocyanate (91-08-7)
- US. ACGIH TLVs:
  - TWA: 0.005 ppm
  - STEL: 0.02 ppm
  - Group A4: Not Classifiable as human carcinogen.
  - Respiratory Sensitizer

ENGINEERING CONTROLS:
Local exhaust should be used to maintain levels below the TLV and PEL whenever diisocyanate is handled, processed, or spray-applied. At normal room temperatures (70 F) TDI levels quickly exceed the TLV or PEL unless properly ventilated. To ensure that published exposure limits have not been exceeded, monitoring for airborne diisocyanate should become part of the overall employee exposure characterization program.

INHALATION:
Diisocyanate vapors or mist at concentrations above the TLV or PEL can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Persons with a preexisting, nonspecific bronchial hyper reactivity can respond to concentrations below the TLV or PEL with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the TLV or PEL may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION continued

like symptoms (e.g., fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

CHRONIC INHALATION
As a result of previous repeated overexposures or a single large dose, certain individuals may develop sensitization to diisocyanates (asthma or asthma-like symptoms) that may cause them to react to a later exposure to diisocyanates at levels well below the TLV or PEL. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure. Extreme asthmatic reactions can be life threatening. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Sensitization can be permanent. Chronic overexposure to diisocyanates has also been reported to cause lung damage (including fibrosis, decrease in lung function) that may be permanent.

RESPIRATORY PROTECTION:
Airborne TDI concentrations greater than the ACGIH TLV-TWA (TLV) or OSHA PEL-C (PEL) can occur in inadequately ventilated environments when TDI is sprayed, aerosolized, or heated. In such cases, respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied air respirator (SAR) in the positive pressure or continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected then (a) the cartridge must be equipped with an end-of-service life indicator (ESLI) certified by NIOSH, or(b) a change out schedule, based on objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program. Further, if an APR is selected, the airborne diisocyanate concentration must be no greater than 10 times the TLV or PEL. The recommended APR cartridge is an organic vapor/particulate filter combination cartridge (OV/P100).
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EYE PROTECTION: Eye protection is required. Examples of eye protection include a chemical safety goggle, or chemical safety goggle in combination with a full face shield when there is a greater risk of splash.

SKIN PROTECTION: Gloves should be worn. Nitrile rubber shows excellent resistance. Butyl rubber, neoprene, and PVC are also effective. Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION continued

possible with appropriate clothing to prevent skin contact. In cured form, the product is difficult to remove from skin and hair.

ADDITIONAL PROTECTIVE MEASURES:
Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product.

WORK HYGIENIC PRACTICES:
Use good hygiene practices when handling this material including changing and laundering of work clothes after use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Light yellow
ODOR: Slightly sweet
ODOR THRESHOLD: Not available
PHYSICAL STATE: Liquid
pH: Not applicable
MELTING/ FREEZING PT: Not available
FLASH POINT: CC: 225°F (107°C)
EVAPORATION RATE: Not available
FLAMMABILITY: Flammable
UPPER FLAMMABILITY LIMITS: Not available
LOWER FLAMMABILITY LIMITS: Not available
VAPOR PRESSURE: Not available
VAPOR DENSITY: Not available
BULK DENSITY: 8.7-9.2 lbs/gal
SPECIFIC GRAVITY: ~1.05
SOLUBILITY (H_2O): None
PARTITION COEFFICIENT: Not available
AUTO-IGNITION TEMPERATURE: Not available
VISCOSITY: 650-800 cps @ 72°F
VOC CONTENT % WT: None
DECOMPOSITION TEMPERATURE: Not available

SECTION 10: STABILITY AND REACTIVITY

STABILITY:
Contact with moisture or temperatures above 350˚ F (177˚ C) will cause polymerization.

CONDITIONS TO AVOID (STABILITY): Exposure to elevated temperatures will cause degradation and/or polymerization.

SECTION 10: STABILITY AND REACTIVITY continued

INCOMPATIBILITY (MATERIAL TO AVOID):
Water, Amines, Strong Bases, Alcohols, Copper Alloys, Liquid Chlorine

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:
Fire or intense heat will decompose the product into acidic and /or toxic smoke and fumes.

HAZARDOUS POLYMERIZATION:
During normal polymerization CO_2 is produced.

SECTION 11: TOXICOLOGICAL INFORMATION

Mixed isomers of Toluene Diisocyanate
CARCINOGENICITY:
IARC: Group 2B Possible carcinogen
NTP: Anticipated Carcinogen

Inhalation: LC50 (rat) :66 ppm/1hrs 13.9 ppm /4hrs
Oral: LD50(rat): 3360 mg/kg
Dermal: LD50 (rabbit): 10000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:
Does not Bioaccumulate (All Ingredients)

2,4-Toluene Diisocyanate (584-84-9) and 2,6-Toluene Diisocyanate (91-08-7)

Ecotoxicity:	LC50 (fish):	96 hr rainbow trout:	133 mg/L
		96 hr Japanese medaka	4170 mg/L
		96 hr Zebra fish:	>100 mg/L
		24 hr Zebra fish:	>500 mg/L
	EC50 (invertebrates):	48 hr daphnia	12.5 mg/L
		24 hr daphnia	750 mg/L
		48 hr common shrimp	18.3 mg/L
		24 hr freshwater snail	>500 mg/L

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method
Waste disposal should be in accordance with existing federal, state and local environmental control laws. Incineration is the preferred method.

Empty Container Precautions
Empty containers retain product residue; observe all precautions for product. Do not heat or cut empty container with electric or gas torch because highly toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed prior to disposal. Dispose of per local, state and federal guidelines as required by your specific local. This product in its cured foam state is inert and non-toxic

SECTION 14: TRANSPORT INFORMATION

Not regulated by DOT, IAT, or IMO

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

Ingredient	TSCA	CERCLA RQ	SARA 302	SARA 313
2,4 -Toluene Diisocyanate	Yes	100 lbs	Yes	Yes
2,6 -Toluene Diisocyanate	Yes	100 lbs	Yes	Yes

TSCA:
All components are listed on or exempt from the TSCA master list inventory.
WHMIS:
All components are listed on the CEPA Domestic Substances List (DSL)

Ingredient Disclosure List (IDL), the following components are on the list:
2,4 -Toluene Diisocyanate
2,6 -Toluene Diisocyanate

SECTION 16: OTHER INFORMATION

NFPA HAZARD CLASSIFICATION:
HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 1
HMIS:
HEALTH: 2 FLAMMABILITY: 1 PHYSICAL HAZARD: 1

PREPARATION INFORMATION:
December 2008
This MSDS is on a three year review cycle. If the date on this sheet is older than three years please contact *de neef* Construction Chemicals Inc. for an updated MSDS.

DISCLAIMER:
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