SAFETY DATA SHEET

Natural-Therm® 0.50 IB PCF"B" COMPONENT
Revised Date 1/20/2016 NP
Draft 1: SDS-004

SECTION 1: IDENTIFICATION

PRODUCT NAME	**Natural-Therm™ 0.50 IB PCF**
CAS NUMBER	Not Available
PRODUCT USE	Polyurethane Foam
MANUFACTURER	Natural Polymers, LLC
ADDRESS	4N 325 Powis Road West Chicago, IL 60185
PHONE	888-563-3111
FAX	
EMERGENCY CONTACT:	FOR SPILLS, LEAKS, FIRE or EXPOSURE CALL **CHEMTREC**
TOLL FREE	**800-424-9300**
INTERNATIONAL	+1-703-527-3887
FAX	913-321-1490

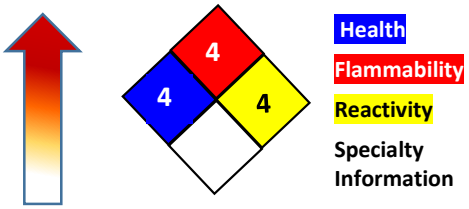
SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

GHS Pictogram

NEW GHS SCALE

1	Extreme
2	Serious
3	Moderate
4	Slight



WARNING

Personal Protective Equipment

EMERGENCY OVERVIEW

HAZARD STATEMENTS

H312 Harmful in contact with skin
H302 Harmful if swallowed
H335 May cause respiratory irritation

PRECAUTIONARY STATEMENTS

P280 Wear protective gloves/protective clothing/eye protection/face protection
P264 Wash skin thoroughly after handling
P261 Avoid breathing dust/fume/gas/mist/vapours/spray

Appearance, Color & Odor: Liquid, Light Yellow, & Amine Odor

READ THE ENTIRE SDS FOR MORE THOROUGH EVALUATION OF THE HAZARDS

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	% WEIGHT
Proprietary*	N/A	13-35
Proprietary*	N/A	13-35
Alcohol Ethoxylated	68439-46-3	10-15
Proprietary*	N/A	3-7
2-(2-2-dimethylamino ethoxy) – ethlymethylamino-amino	83016-70-0	1-3

*The specific chemical identity and exact percentage (concentration) is withheld as a trade secret per applicable regulations and statutes.

SECTION 4: FIRST AID MEASURES

EYE:	**H319**	Wear eye protection/face protection. 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.
SKIN:	**H315**	Wash skin thoroughly after handling. Wear protective gloves/protective clothing. IF ON SKIN: Wash with plenty of soap and water. IF SKIN irritation occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse.
INHALATION:	**H335**	May cause respiratory irritation. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
INGESTION:	**H302**	Do not eat, drink, or smoke when using this product. IF SWALLOWED: call a POISON CENTER or doctor/physician get medical attention immediately. Rinse mouth.
NOTES TO PHYSICIANS:		Symptomatic treatment and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours as delayed pulmonary oedema may develop.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: Closed cup: >230°F (>110° C)

EXTINGUISHING MEDIA:

Suitable	Dry chemical, foam, carbon dioxide, and water fog.
Not Suitable	None known.

FIRE FIGHTING EQUIPMENT/INSTRUCTIONS: Firefighter should wear full fire-fighting turn-out-gear (full Bunker gear) including NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: For major spills call **CHEMTREC** Toll Free 1-800-424-9300 or for International call 1-703-527-3887.

PERSONAL PRECAUTIONS: Wear appropriate personal protective equipment recommended in SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION of this SDS. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering.

	Do not touch or walk through spilled material. Do not breathe vapour or mist. Provide adequate ventilation.
ENVIRONMENTAL PRECAUTIONS:	This material may contaminate the environment without proper control and response to spills. Ensure spilled material does not come in contact with soil, waterways, drains, sewers, or other runoff that could further disperse the material.
METHODS FOR CONTAINMENT:	Use diking or capping to control migration. Contain and collect spillage with non-combustible absorbent materials (e.g., sand, earth, vermiculite, or diatomaceous earth) and place in container for disposal according to local, state, and/or federal regulations
METHODS FOR CLEANING UP:	Only proceed with clean up by taking the appropriate personal protection measures required and ensure surrounding area does not contain further hazards that could worsen the spill, cause migration, or cause further harm (i.e., eliminate any ignition sources). Move any non-contaminated, non-leaking containers from the spill zone if it can be done safely. Dike, dam, or further restrict and stop active leaks without posing further damage or harm to individuals, the environment, and/or structures. Contain and collect spillage. (See SECTION 13: DISPOSAL CONSIDERATIONS for disposal information and SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION for recommended (PPE) Personal Protective Equipment).

SECTION 7: HANDLING & STORAGE

GENERAL:	Ideal storage temperature is 50°F-80°F (10°C-27°C). Handling and storage should be in accordance with Local, State/Provincial or Federal regulations. Average shelf life is 6 months from date of manufacture.
HANDLING:	Put on appropriate personal protective equipment (see SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION). Eating, drinking, and smoking shall be prohibited in areas where this material is handled, stored, and processed. Workers shall wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes, on skin, or on clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
STORAGE:	Store in accordance with local, state, and federal regulations. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area, away from incompatible materials (see SECTION 10 STABILITY AND REACTIVITY), food, and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
SPECIAL SENSITIVITY:	This product is hygroscopic. Containers should be tightly sealed to prevent moisture contamination. Do not expose to high temperatures for any length of time.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONSULT LOCAL AUTHORITIES FOR ACCEPTABLE EXPOSURE LIMITS.

COMPONENT NAME	TWA		STEL	
2-(2-2-dimethylamino ethoxy) – ethlymethylamino-amino	**0.05 ppm**	8 hours	**0.15 ppm**	8 hours

RECOMMENDED MONITORING PROCEDURES:

As of the latest revision of this document, no known exposure limits exist for this product. The absence of current exposure data does not relieve an employer, user, or other to determine the specific hazards and appropriate exposure protection measures in the applicable and use of this product. Personal, workplace, atmospheric, and/or biological monitoring may be required to determine the effectiveness of engineering, administrative, and/or other best practice control measures. These monitoring results determine the need for and type of respiratory protective equipment, if any. Refer to the appropriate local, state, and federal regulations and statutes for the most current information and for guidance in the determination of hazardous conditions and the correlating personal protective equipment.

PREVENTIVE MEASURES:

Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

ENGINEERING CONTROLS:

Use local exhaust ventilation to maintain airborne concentrations below the threshold limit value (TLV). Suitable respiratory equipment should be used in cases of insufficient ventilation and where operational procedures demand it. For guidance on engineering control measures refer to publications such as the American Conference of Government Industrial hygienist (ACGIH) current edition of 'Industrial Ventilation, a Manual of Recommended Practice.'

PERSONAL PROTECTIVE EQUIPMENT (PPE):

EYE PROTECTION:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or dusts.

SKIN 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. Cover as much exposed skin as possible with appropriate clothing. If skin creams are used, keep the area covered by the cream to a minimum.

HANDS PROTECTION:

Chemical resistant gloves complying with applicable health and safety standards shall be worn when handling this product. Appropriate hazard assessments in conjunction with an evaluation of the protection factors of chemical resistant gloves shall be performed to ensure the protective properties remain intact. It is noted that the time to breakdown of protection factors for different glove manufacturers varies. In the case of mixtures, the protection factors of chemical resistant gloves may be impacted and deteriorate at unpredictable rates without understanding the impact of the substance and the specific protection factors of the chemical resistant gloves.

RESPIRATORY PROTECTION: Ensure adequate ventilation. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator.

WORK HYGIENIC PRACTICES: Follow the usual precautionary measures for handling chemicals. Keep away from food and beverages. Immediately remove all soiled and contaminated clothing. Avoid contact with eyes, skin and clothing. Wash all contaminated clothing and shoes before reuse. Wash hands after use, before eating, drinking, smoking, or using the toilet.

ENVIRONMENTAL EXPOSURE CONTROLS: Industrial air monitoring may be required to determine any potential environmental hazards to the atmosphere. This monitoring may result in the use of engineering and administrative controls such as filtering and scrubbing systems to mitigate or eliminate potential contaminants.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid	**AUTO-IGNITION TEMP:**	Not available
COLOR:	Light yellow/clear	**VAPOR PRESSURE:**	Not available
ODOR:	Not available	**SPECIFIC GRAVITY:**	1.086 g/cc
pH:	Not available	**WATER SOLUBILITY:**	Not available
BOILING/CONDENSATION POINT:	Not available	**PARTITION COEFFICIENT:**	Not available
MELTING/FREEZING POINT:	Not available	**VISCOSITY:**	175 cP @ 77°F (25° C)
FLASH POINT:	Closed cup: > 230° F (110°C)	**EVAPORATION RATE: (butylacetate = 1)**	Not available
DECOMPOSITION TEMPERATURE:	Not available	**VOC:**	Not available

SECTION 10: STABILITY & REACTIVITY

REACTIVITY: Not Available.

CHEMICAL STABILITY: The product is stable under normal conditions.

POSSIBLITY OF HAZARDOUS REACTIONS: Not Available.

CONDITIONS TO AVOID: Not Available.

INCOMPATIBILITY(Materials to Avoid): This product may react with strong oxidizing agents.

HAZARDOUS POLYMERIZATION: Under normal conditions of storage and use, hazardous polymerization should not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: At thermal decomposition temperatures carbon monoxide and carbon dioxide.

SECTION 11: TOXICOLOGY INFORMATION

PRODUCT NAME	ROUTE	SPECIES	DOSE	EXPOSURE
Polyether polyol	LD_{50} Oral LD_{50} Dermal	Rat Rabbit	>5,000 mg/kg >2,000 mg/kg	Unknown Unknown

PRODUCT NAME	ROUTE	SPECIES	DOSE	EXPOSURE
PRODUCT NAME	**ROUTE**	**SPECIES**	**DOSE**	**EXPOSURE**
Alcohol Ethoxylated N,N,N'-trimethylaminoethyl Ethanolamine	LD_{50} Oral LD_{50} Oral LD_{50} Dermal LC_{50} Inhalation	Rat Rat Rabbit Rat	200 to 2,000 mg/kg >1,580 mg/kg >2,000 mg/kg >2.7 mg/l	Unknown Unknown Unknown 4 hours
PRODUCT NAME	**ROUTE**	**SPECIES**	**DOSE**	**EXPOSURE**
2-(2-2-dimethylamino ethoxy) – ethlymethylamino-amino	LD_{50} Oral LD_{50} Dermal LC_{50} Inhalation	Rat Rabbit Rat	570 mg/kg 750 mg/kg 0.5 to 1.15 mg/l	Unknown Unknown 4 hours

ACUTE TOXICITY

INGESTION: Harmful if swallowed.

INHALATION: Irritating to respiratory system.

EYES: Slightly irritating to the eyes.

SKIN: Toxic when contact with skin.

REMARKS: This chemical has produced mild skin sensitization in an animal study. However, skin sensitization has not been seen in humans following many years experience in the manufacture and use of this chemical. (Polyether Polyol)

POTENTIAL CHRONIC HEALTH EFFECTS

CARCINOGENIC EFFECTS: No known significant effects or critical hazards
MUTAGENIC EFFECTS: No known significant effects or critical hazards
TERATOGENICITY/ REPRODUCTIVE TOXICITY: No known significant effects or critical hazards

SECTION 12: ECOLOGICAL INFORMATION

Ingredient Name	Time	Exposure Time	Results
2-(2-2-dimethylamino ethoxy) – ethlymethylamino-amino	Algae (IC_{50})	72 hours	23 ppm (mg/l)

SECTION 13: DISPOSAL CONSIDERATION

WASTE DISPOSAL: By-product wastes or process waste generation should be eliminated and/or minimized when possible. Do not dispose of any contaminants into sanitary sewer systems, storm drains, Publicly Owned Treatment Works (POTW), or any other municipal waste water treatment facility without written approval and agreements for processing wastes with such enterprises. Dispose of raw or unused materials, wastes, and/or by-products in accordance with all applicable local, state, and federal laws. Employ the expertise and knowledge of qualified personnel or contractors in disposal of any and all variants of this product. Ensure material containers are cleaned to the applicable standards before recycling, disposing, or reusing containers. Take special precautions to avoid any cross contamination and potential unknown effects from mixing with other substances. Refer to (SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION) of this document

for personal protection requirements. Disposal to the environment or in violation of environmental protection laws and statutes must be prevented.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

SECTION 14: TRANSPORT INFORMATION

EMERGENCY CONTACT: For Spills, Leaks, Fire or Exposure call **CHEMTREC**

Toll Free: 800-424-9300

International Calls: +1-703-527-3887

REGULATORY INFORMATION:

DOT: Not regulated.
IMDG: Not regulated.
IATA-DGR: Not regulated.
TDG: Not regulated.

SECTION 15: REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

United States

HCS Classification	Toxic material Corrosive material
US Federal regulations	TSCA 8 (b) inventory: All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

CERCLA: Hazardous substances

Components	**Concentrations**	**Section 304 CERCLA Hazardous Substance**	**CERCLA Reportable Quantity**	**Product Reportable Quantity**
Toluene	0.015	Listed	1,000	66666667
Ethylene oxide	0.00015	Listed	10	66666667

SARA 313

No ingredient listed. This product does not contain nor is it manufactured with ozone depleting substances.

Ingredient Name	**Cancer**	**Reproductive**	**No significant risk level**	**Maximum acceptable dosage level**
Toluene	No	Yes	No	7,000 µg/day (ingestion) 13,000 µg/day (inhalation)
1,4-dioxane	Yes	No	Yes	No
Ethylene oxide	Yes	Yes	Yes	Yes-

Canada

WHMIS (Canada) Class D-1B Material causing immediate and serious toxic effects (Toxic).

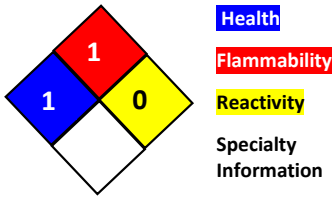
CEPA (DSL) Class D-2B: Material causing other toxic effects (Toxic).

Canada Inventory: All ingredients listed.

SECTION 16: OTHER INFORMATION

4	**Extreme**
3	**Serious**
2	**Moderate**
1	**Slight**
0	**No Hazard**

National Fire Protection Association (NFPA)



Hazardous Material Information System (HMIS)

Health	**1**
Flammability	**1**
Reactivity	**0**
PPE	

Note: The customer is responsible for determining the PPE code for this material. At the time of publishing, the NFPA/HMIS and the New GHS scale had opposite scales of severity. Check the most recent publications for current information.

Date of Issue: Draft 1
Date of previous issue: 01/20/16
For Your Protection: The information and recommendations in this publication is to the best of our knowledge, reliable. The toxicity and risk characteristics of products made by NP will necessarily differ from the toxicity and risk characteristics that occur when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors. The user is responsible to comply with all applicable federal, provincial or municipal laws and regulations. NP MAKES NO WARRANTIES OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Preparation Information: This SDS supersedes ALL previous SDS versions.