
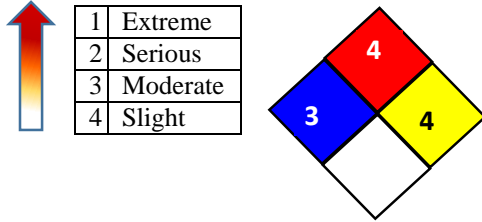



SECTION 1: IDENTIFICATION

PRODUCT NAME Natural-Therm® 3.0 PCF “B” COMPONENT
 CAS NUMBER Not available
 PRODUCT USE Polyurethane foam
 MANUFACTURER Natural Polymers, LLC
 ADDRESS 4N 325 Powis Road
 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 	<p>NEW GHS SCALE</p>  <p>1 Extreme 2 Serious 3 Moderate 4 Slight</p> <p>Health Flammability Reactivity Specialty Information</p>
<p>WARNING</p>	<p>Personal Protective Equipment</p> 

EMERGENCY OVERVIEW:

HAZARD STATEMENTS

H315 Causes skin irritation.
 H317 May cause allergic skin reaction.
 H320 Causes eye irritation.
 H303 May be harmful if swallowed.
 H335 May cause respiratory irritation.
 H333 May be harmful if inhaled.

PRECAUTIONARY STATEMENTS

P264 Wash hands thoroughly after handling.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P261 Avoid breathing dust/fumes/gas/mist/vapors /spray.
 P271 Use only out doors or in a well-ventilated area.
 P272 Contaminate clothes should not be allowed out of the workplace.
 P270 Do not eat, drink, or smoke when using this product.
 P285 In case of inadequate ventilation wear respiratory protection.

Liquid, clear yellow, slight odor.

APPEARANCE, COLOR, ODOR:

USA: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
READ THE ENTIRE SDS FOR MORE THOROUGH EVALUATION OF THE HAZARDS



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SAFETY DATA SHEET

Natural Therm® 3.0 PCF “B” COMPONENT

Revised Date: 9/15/15

Draft: 1

SDS-033

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	% WEIGHT
Polyether polyol	Not available.	13-30
Polyester polyol	Not available.	30-60
1,1,1,3,3-pentafluoropropane	460-73-1	7-13
Triethyl phosphate	78-40-0	1-3
Tris (2-chloro-1-methylethyl) phosphate	13674-84-5	1-3
Diethyltoluenediamine	68479-98-1	1-3
Pentamethylpropylene-triamine	3855-32-1	1-3
Ethylene glycol	107-21-1	0.1-1

SECTION 4: FIRST AID MEASURES

EYE:	H320	Causes eye irritation. 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:	H315/317	Causes skin irritation and may cause an allergic skin reaction. If on skin: wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
INHALATION:	H333/335	May be harmful if inhaled, may cause respiratory irritation. If inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
INGESTION:	H303	May be harmful if swallowed. If swallowed: Rinse mouth. Call a poison center or doctor/physician IF you feel unwell.
NOTES TO PHYSICIAN:		Symptomatic and supportive therapy as needed. Following severe exposure, medical follow-up should be monitored for 48 hours.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT:	Not available
HAZARDS WHEN ON FIRE OR NEAR FLAME:	May produce toxic fumes of carbon dioxide, carbon monoxide.
SUITABLE EXTINGUISHING MEDIA:	Dry chemical, foam, carbon dioxide, or water fog.
NOT SUITABLE EXTINGUISHING MEDIA:	None known.
SPECIAL EXPOSURE HAZARDS:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any

SAFETY DATA SHEET

Natural Therm® 3.0 PCF “B” COMPONENT

Revised Date: 9/15/15

Draft: 1

SDS-033

personal risk or without suitable training. If in a fire or heated, a pressure increase will occur and the container may rupture.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

For major spills call **CHEMTREC**: Toll free 1-800-424-9300 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. Immediately contact emergency personnel. Evacuate the area. Keep upwind avoiding inhalation of vapors. Clean-up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including respiratory protection.

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, waterway, drains, sewers, or other runoff that would further disperse the material. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air). Sources of ignition should be kept clear.

METHODS FOR CONTAINMENT:

Use diking or capping to control migration. Contain and absorb large spillages with a non-flammable absorbent carrier (such as vermiculite, earth, or sand). DO NOT USE combustible materials such as sawdust. Shovel into open-top drums or plastic bags for further decontamination, if necessary. Remove and properly dispose of residues. Dispose of via a licensed waste disposal contractor (See SECTION 13: DISPOSAL CONSIDERATIONS) Notify applicable government authorities if release is reportable.

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 personal protective equipment (PPE). Obey all local, state, and federal regulations during clean up.

SECTION 7: HANDLING & STORAGE

SAFETY DATA SHEET

Natural Therm® 3.0 PCF “B” COMPONENT

Revised Date: 9/15/15

Draft: 1

SDS-033

GENERAL:

Ideal storage temperature is 60 – 90°F (15-32°C). Handling and storage shall be in accordance with local, state/provincial, or federal regulations.

HANDLING:

Before opening this package, read and follow warning labels on all components. Avoid contact with the product or reaction mixture. Put on appropriate personal protective equipment. Use only with adequate ventilation to ensure that the occupational exposure limit is not exceeded, use respirator when ventilation is inadequate. Avoid breathing aerosols, mists, and vapors. (See SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION for details). Do not ingest. Eating, drinking, and smoking shall be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems, asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes, on skin, or clothing. 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:

Keep containers properly sealed and when stored indoors, in a dry and well-ventilated area. Keep contents away from moisture. Due to reaction with water producing CO₂ gas, a hazardous build-up of pressure could result if contaminated containers are resealed. DO NOT reseat contaminated containers. Uncontaminated containers, free of moisture, may be resealed and stored after purging the container with argon or nitrogen gas. DO NOT store in containers made of copper, copper alloys, or galvanized surfaces.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSRE LIMITS

INGREDIENT NAME	CAS NUMBER	EXPOSURE LIMITS
Polyether polyol	Not available.	Not available.
Polyester polyol	Not available.	Not available.
1,1,1,3,3-pentafluoropropane	460-73-1	AIHA WEEL (United States, 1/2006) TWA: 300 ppm
Triethyl phosphate	78-40-0	Not available.
Tris (2-chloro-1-methylethyl) phosphate	13674-84-5	Not available.
Diethyltoluenediamine	68479-98-1	Not available.
Diethanolamine	34354-45-5	Not available.
Pentamethylpropylene-triamine	3855-32-1	Not available.
Ethylene glycol	107-21-1	ACGIH TLV (United States, 1/2006) CEIL: 100 mg/m ³ 0 hours. Form: Aerosol OSHA PEL 1989 (United States, 3/1989) CEIL: 125 mg/m ³ 0 hours CEIL: 50 ppm 0 hours

SAFETY DATA SHEET

Natural Therm® 3.0 PCF “B” COMPONENT

Revised Date: 9/15/15

Draft: 1

SDS-033

ENGINEERING CONTROLS: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor, or mist, use process enclosures, local exhaust ventilation, and other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

HYGIENE MEASURES: Wash hands, forearms, and face thoroughly with plenty of soap and water after handling chemical products, before eating, smoking, and using the restroom. Appropriate engineering, administrative, and other best practice decontamination control measures must be used to isolate contaminants on clothing and to prevent unintended migration of contaminants. Handle clothing and other potentially contaminated material appropriately and in compliance with local, state, and federal regulations in the process of removing, washing/cleaning and reuse of these potentially contaminated materials. Ensure compliant use and location of eyewash station and safety showers.

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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield.

SKIN PROTECTION: Personal protective equipment for the body should be selected based on the task being performed, the risks involved, and should be approved by an industrial hygiene specialist before handling this product.

HANDS PROTECTION: Chemical resistant gloves complying with applicable health and safety standards shall be worn when handling this product. Protective gloves are those made from butyl rubber, nitrile rubber, or polyvinyl alcohol. 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. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

ENVIRONMENTAL EXPOSURE CONTROLS: Dispose of raw and spent materials and wastes in compliance with all local, state, and federal regulations to prevent potential environmental contamination. Industrial air monitoring may be required to determine

SAFETY DATA SHEET

Natural Therm® 3.0 PCF “B” COMPONENT

Revised Date: 9/15/15

Draft: 1

SDS-033

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	FLASH POINT:	Not available
COLOR:	Clear yellow	AUTO-IGNITION TEMP:	Not available
ODOR:	Slight odor	DECOMPOSITION TEMPERATURE:	Not available
ODOR THRESHOLD:	Not available	EXPLOSIVE LIMITS:	Not explosive
pH:	N/A	FLAMMABILITY:	Not available
WATER SOLUBILITY:	Not available	BOILING POINT:	Not available
PARTITION COEFFICIENT:	Not available	BOILING RANGE:	Not available
SPECIFIC GRAVITY:	1.05g/cc (Water=1)	MELTING/FREEZING POINT:	Not available
VISCOSITY:	950 cps @ 25°C	VAPOR PRESSURE:	Not available
EVAPORATION RATE:	Not available	VAPOR DENSITY:	Not available
VOC:	Not available	RELATIVE DENSITY:	8.8 lbs./gal

SECTION 10: STABILITY & REACTIVITY

STABILITY: Stable when handled and stored at temperatures 60-90°F (15°C-32°C).

INCOMPATIBILITY: This product may react with strong oxidizing agents.

HAZARDOUS REACTION: No information available.

HAZARDOUS POLYMERIZATION: Will not occur.

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

SECTION 11: TOXICOLOGY INFORMATION

SIGNS AND SYMPTOMS OF OVEREXPOSURE/ACUTE HEALTH EFFECTS:

EYE CONTACT: Causes eye irritation.

SKIN CONTACT: Causes skin irritation and may cause allergic skin reaction.

INHALATION: Harmful if inhaled and may cause respiratory irritation.

INGESTION/ASPIRATION: May be harmful if swallowed.

SAFETY DATA SHEET

Natural Therm® 3.0 PCF “B” COMPONENT

Revised Date: 9/15/15

Draft: 1

SDS-033

ACUTE TOXICITY:

INGREDIENT NAME	CAS NUMBER	LD ₅₀ Oral (mg/kg)	LD ₅₀ Dermal (mg/kg)	LC ₅₀ Inhalation (mg/L/4hrs)
Polyether polyol	Not available.	2,000-5,000 (rat)	1,000-2,000 (rabbit)	Not available.
Polyester polyol	Not available.	Not available.	Not available.	Not available.
1,1,1,3,3-pentafluoropropane	460-73-1	Not available	>2,000 (rat)	1,096 (rat) vapor
Triethyl phosphate	78-40-0	1,310 (rat)	Not available.	>2,000 (rat) vapor
Tris (2-chloro-1-methylethyl) phosphate	13674-84-5	2,800-4,200 (rat)	>5,000 (rabbit)	4.6 (rat) dust and mist
Diethyltoluenediamine	68479-98-1	>500 (rat)	>2,000 (rabbit)	Not available.
Pentamethylpropylene-triamine	3855-32-1	788 (rat)	1,000-1,500 (rabbit)	Not available.
Ethylene glycol	107-21-1	1.1 (human), 4,000-6,140 (rat)	>2,000 (rabbit)	Not available.

POTENTIAL CHRONIC EFFECTS

CHRONIC EFFECTS:	Diethylene glycol may cause target organ damage, based on animal data.
TARGET ORGANS:	Contains material which may cause damage to the following organs: kidney, the nervous system, cardiovascular system, central nervous system, and pancreas
CARCINOGENICITY:	Diethyltoluenediamine is list by the National Toxixology Program as a possible human carcinogen
MUTAGENICITY:	No known significant effects or critical hazards.
TERATOGENICITY:	Contains material which can cause birth defects.
FERTILITY EFFECT:	Diethylene glycol may impair female fertility, based on animal data.
DEVLEOPMENTAL EFFECTS:	No known significant effects or critical hazards.
MEDICAL CONDITIONS AGGRAVATED BY OVER-EXPOSURE:	Existing respiratory/pulmonary conditions may be aggravated by overexposure.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS:	Based on a review of the individual components this product may be immediately harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment and is not readily biodegradable.
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SECTION 13: DISPOSAL CONSIDERATION

SAFETY DATA SHEET

Natural Therm® 3.0 PCF “B” COMPONENT

Revised Date: 9/15/15

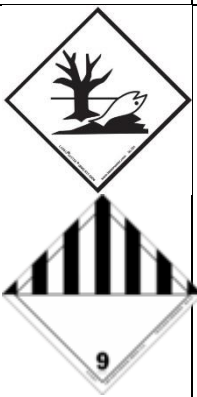
Draft: 1

SDS-033

WASTE DISPOSAL:

By-product wastes or process waste generation shall 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 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 CONTROL/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.

SECTION 14: TRANSPORT INFORMATION

REGULATORY INFORMATION	UN NUMBER	CLASSES	PG	LABEL	ADDITIONAL INFORMATION
DOT Classification	Not regulated				
TDG Classification	Not regulated				
IMDG Class	Not regulated				
IATA-DGR Class	UN3082 Ethylene oxide, 1,2'-iminodiethanol proplene oxide polymer Environmentall hazardous substance	9	III		Passenger and Cargo Aircraft Quantity limitation: 450 L Packaging instructions: 964 Cargo Aircraft Only Quantity limitation: 450 L Packaging instructions: 964

This product could potentially contaminate aquatic and terrestrial environments if not handled in accordance with all precautions, regulations, and laws. Users, transporters, and all other applicable entities must review, follow, and apply any and all necessary precautions and procedures to eliminate and/or minimize potential hazards or risks to aquatic or terrestrial environments.

SECTION 15: REGULATORY INFORMATION

U.S. Federal Regulations

This material is classified as hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200)

HCS Classification: Toxic
 Irritant
 Sensitizer
 Target organ effect

TSCA 8b Inventory: All components are listed on the TSCA inventory or are exempt.

TSCA 5a(2): No components listed.

TSCA 5e: No components listed.

TSCA 12b: No components listed.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): No components listed.

Clean Air Act – Ozone Depleting Substances (ODS): This product does not contain nor is it manufactured with ozone depleting substances.

SARA 313 Form R-Reporting Requirements:

COMPONENT	CAS NUMBER	CONCENTRATION
Ethylene glycol	107-21-1	0.1-1%

SARA 311/312: Acute health hazard, chronic health hazard.

CERCLA Hazardous substances:

COMPONENT	Section 304 CERCLA Hazardous Substance	CONCENTRATION	Reportable quantity
Ethylene glycol	Listed	0.1-1%	5,000 lbs

STATE REGULATIONS:

PENNSYLVANIA/ NEW JERSEY/MASSACUSETTS – RTK:

COMPONENT	CAS NUMBER	CONCENTRATION
Ethylene glycol	107-21-1	0.1-1%

California Prop 65: This product contains no listed substances known to the State of California to cause cancer, birth defects, or other reproductive harm, at levels which would require a warning under the statute

SAFETY DATA SHEET

Natural Therm® 3.0 PCF “B” COMPONENT

Revised Date: 9/15/15

Draft: 1

SDS-033

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

INTERNATIONAL LISTS:

Australia inventory (AICS):

Information not available.

China inventory (IECSC):

Information not available.

Japan inventory:

Information not available.

Korea inventory:

Information not available.

New Zealand inventory of Chemicals

(NZIoC):

Information not available.

Philippines inventory (PICCS):

Information not available.

SAFETY DATA SHEET

Natural Therm® 3.0 PCF “B” COMPONENT

Revised Date: 9/15/15

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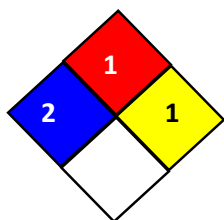
SDS-033

SECTION 16: OTHER INFORMATION

4	Extreme
3	Serious
2	Moderate
1	Slight
0	No Hazard



National Fire Protection Association (NFPA)



Health
Flammability
Reactivity
Specialty
Information

Hazardous Material Information System (HMIS)

Health	2
Flammability	1
Reactivity	1
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:

12/31/2014

Date of previous issue:

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.