SECTION 1: IDENTIFICATION

PRODUCT NAME	HARD CAP-100™ "A" COMPONENT
CAS NUMBER	Not available
PRODUCT USE	Polyurea Coating
MANUFACTURER	Specialty Products, Inc. (SPI)
ADDRESS	2410 104th Street Ct S Suite D, Lakewood, WA 98499
PHONE	253-588-7101 (800) 627-0773
FAX	253-588-7196
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

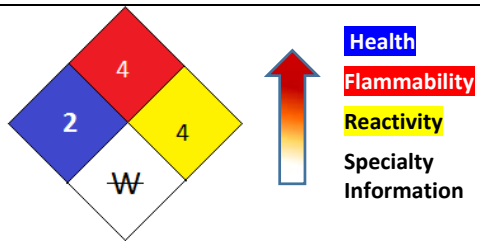
GHS CLASSIFICATION:

GHS Pictogram

DANGER

NEW GHS SCALE

1	Extreme
2	Serious
3	Moderate
4	Slight



Personal Protective Equipment

EMERGENCY OVERVIEW

HAZARD STATEMENTS

H331	Toxic if inhaled.
H334	My cause allergy or asthma symptoms or breathing difficulties if inhaled.
H302	Harmful if inhaled.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

PRECAUTIONARY STATEMENTS

P260	Do not breathe dust/fume/gas/mist/vapours /spray.
P271	Use only outdoors or in a well-ventilated area.
P284	Wear respiratory protection.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P272	Contaminated work clothing should not be allowed out of the workplace.

APPEARANCE, COLOR, ODOR: Liquid, clear yellow, slightly musty.

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

"Proudly Made in the USA"

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NUMBER	% WEIGHT
Isophorone diisocyanate	4098-71-9	20-40
Hexane, 1, 6-diisocyanate-, homopolymer	28182-81-2	20-40
Polyether triol	25791-96-2	10-30
Caster fatty acids tryglyceride	8001-79-4	10-30
Propylene carbonate	108-32-7	1-20
Tetramethylxylene diisocyanate, m-	2778-42-9	1-20

SECTION 4: FIRST AID MEASURES

EYE:	**H319**	Causes serious 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 allergic skin reaction/sensitization. If on skin: wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before use.
INHALATION:	**H331/334**	Toxic by inhalation and may cause allergy or asthsma symptoms or breathing difficulties. If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
INGESTION:	**H302**	May be harmful if swallowed. If swallowed: Rinse mouth. Do not induce vomiting. 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, hydrocarbons, and/or nitrogen oxides when near heat source/flame. When in a closed container, pressure will increase which may lead to a rupture of the container.
SUITABLE EXTINGUISHING MEDIA:	Use dry chemical, carbon dioxide, or alcohol resistanct foam.
UNSUITABLE EXTINGUISHING MEDIA:	Water (unless in large quantities).
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

	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

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/ PRESONAL PROTECTION for details). Do not ingest. 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. 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 containers.

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 CO_2 gas, a hazardous build-up of pressure could result if contaminated containers are resealed. DO NOT reseal 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 tin, copper, copper alloys, or galvanized surfaces.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSRE LIMITS:

COMPONENT NAME	CAS Number	EXPOSURE LIMITS
Isophorone diisocyanate	4098-71-9	**USA ACGIG Threshold Limit Values** TWA: 0.0050 ppm **USA OSHA-Table Z-1 Limits for Air Conaminants-1910.1000** TWA: 0.0050 ppm STEL: 0.02 ppm **USA NIOSH Recommended Exposure Limits** TWA: 0.005 ppm, 0.045 mg/m^3 ST: 0.02 ppm, 0.18mg/m^3
Hexane, 1, 6-diisocyanate-, homopolymer	28182-81-2	**RHODIA** TWA: 1 mg/m^3 **ACGIH** TWA: 0.005 PPM

Polyether triol	25791-96-2	Not available
Caster fatty acids tryglyceride	8001-79-4	No exposure limits established
Propylene carbonate	108-32-7	Not available
Tetramethylxylene diisocyanate, m-	2778-42-9	Not available

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 and at the end of the working period. Appropriate engineering, administrative, and other best practice decontamination control measures must be used to isolate contaminates 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: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air 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 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:	Slightly musty	**DECOMPOSITION TEMPERATURE:**	Not available
ODOR THRESHOLD:	Not available	**EXPLOSIVE LIMITS:**	Not available
pH:	Not applicable	**FLAMMABILITY:**	Not available
WATER SOLUBILITY:	Not available	**BOILING POINT:**	Not available
PARTITION COEFFICIENT:	Not available	**BOILING RANGE:**	Not available
SPECIFIC GRAVITY:	1.1 g/cc	**MELTING/FREEZING POINT:**	Not available
VISCOSITY:	1200 cps	**VAPOR PRESSURE:**	Not available
EVAPORATION RATE: (butyl acetate = 1)	Not available	**VAPOR DENSITY:**	Not available
VOC:	Not available	**RELATIVE DENSITY:**	9.1 lbs./gal

SECTION 10: STABILITY & REACTIVITY

STABILITY: Stable when handled and stored at temperatures 60 – 90°F (15-32°C). Reaction with water (moisture) produces CO_2 gas. Exothermic reaction with materials containing active hydrogen groups.

INCOMPATIBILITY: Incompatible with water, strong oxidizing agent, strong acids, alcohols, ammonia, and strong bases.

HAZARDOUS REACTION: Exothermic reaction will occur when combined with sister component. Under normal conditions of storage and use, hazardous reactions will not occur.

HAZARDOUS POLYMERIZATION: Polymerization may occur at elevated temperatures in the presence of alkalis, tertiary amines and metal compounds. Under normal conditions of storage and use, hazardous polymerization should not occur.

CONDITIONS TO AVOID: Avoid moisture contamination and high temperatures.

SECTION 11: TOXICOLOGY INFORMATION

ACUTE HEALTH EFFECTS:

EYE CONTACT: Causes serious eye irritation.

SKIN CONTACT: Causes skin irritation, may cause allergic skin reaction/sensitization.

INHALATION: Toxic if inhaled. My cause allergy or asthma symptoms or breathing difficulties if inhaled.

INGESTION: Harmful if swallowed.

ACUTE TOXICITY:

COMPONENT NAME	CAS Number	LD_{50} Oral (mg/kg)	LD_{50} Dermal (mg/kg)	LC_{50} Inhalation (mg/m^3/4hrs)	LD_{50} Intraperito-neal (mg/kg)
Isophorone diisocyanate	4098-71-9	4,825 (rat)	Not available	123 (rat)	Not available
Hexane, 1, 6-diisocyanate-, homopolymer	28182-81-2	>5,000 (rat)	>2,000 (rabbit)	2,180 (rat)	Not available
Polyether triol	25791-96-2	Not available	Not available	Not available	Not available
Caster fatty acids tryglyceride	8001-79-4	Not available	Not available	Not available	Not available
Propylene carbonate	108-32-7	33,520 (rat)	>2,000 (rabbit)	Not available	Not available
Tetramethylxylene diisocyanate, m-	2778-42-9	>5,000 (rat)	Not available	27 (rat)	Not available

POTENTIAL CHRONIC EFFECTS:

CHRONIC EFFECTS: Contains material that can cause target organ damage. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

TARGET ORGANS: Contains material which causes damage to the upper respiratory tract, tissue of the mucous membrane, eyes, and skin.

CARCINOGENICITY: As of this publication, this material is not listed on the National Toxic Program (NTP) Report of Carcinogens. Please refer to the most recent information with NTP. .

MUTAGENICITY: No known significant effects or critical hazards.

TERATOGENICITY: No known significant effects or critical hazards.

FERTILITY EFFECTS: No known significant effects or critical hazards.

DEVELOPMENTAL EFFECTS: No known significant effects or critical hazards.

MEDICAL CONDITIONS AGGRAVATED BY OVER-EXPOSURE: Existing respiratory/pulmonary and skin conditions may be aggravated by overexposure.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS: No available data

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 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

PROPER SHIPPING NAME:

DOT:	Not regulated in quantities less than 5,000 lbs (2270 kg)
TDG:	Not regulated in quantities less than 5,000 lbs (2270 kg)
IMDG:	Not regulated in quantities less than 5,000 lbs (2270 kg)
IATA:	Isophorone Diisocyanate

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.

REGULATORY INFORMATION	UN NUMBER	CLASSES	PG *	LABEL	ADDITIONAL INFORMATION
DOT Classification	UN2290	6.1	III		**Reportable quantity: 5000 lbs (2270 kg)**
TDG Classification	UN2290	6.1	III		**Reportable quantity: 5000 lbs (2270 kg)**

IMDG Classification	UN2290	6.1	III		**EMS-No: F-A, S-A**
IATA Classification	UN2290	6.1	III		**Quantity limitations :** Passenger aircraft: 60L Cargo aircraft: 220L

*PG: Packaging group

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.

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
Isophorone diisocyanate	9048-71-9	20-40%

SARA 311/312 hazard identification:

CERCLA Hazardous substances:

COMPONENT	Concent-ration	Section 302 (TPQ)	Section 313	Section 304 RQ	CERCLA reportable quantity	Product reportable quantity

Isophorone diisocyanate	20-40%	500 lbs	Listed	500 lbs	N/A	1470 lbs

COMPONENT	CAS NUMBER	Concentration	Reportable/Thresh -old quant.
Isophorone diisocyanate	9048-71-9	20-40%	500/500lbs

STATE REGULATIONS:

PENNSYLVANIA/NEW JERSEY/ MASSACHUSETTS – RTK:

COMPONENT	CAS no.	CONCENTRATION
Isophorone diisocyanate	4098-71-9	10-30%

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.

CANADA:

WHMIS (Canada):

COMPONENT	CAS no.	CONCENTRATION
Isophorone diisocyanate	4098-71-9	10-30%
Propylene carbonate	108-32-7	1-10%

WHMIS Class D-2A: Material causing other toxic effects(very toxic)
WHMIS Class D-2B: Material causing other toxic effects (toxic)

CEPA DSL: All components are listed or exempted.

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.

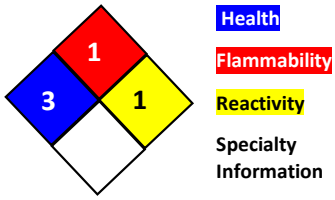
INTERNATIONAL LISTS:

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

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	**3**
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: 10/21/2014
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 SPI 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. SPI 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.