



## Material Safety Data Sheet

### SECTION 1: PRODUCT NAME AND COMPANY INFORMATION

**Product Name:** LTI-SHC-NT5 HARD COATING

**Product Number:** 8342500

**Issue Date:** May 25, 2011

**Supersedes Date:** February 7, 2007

**Manufactured By:**

Lens Technology I, LLC  
14256 Firestone Blvd  
La Mirada, CA 90638-5524

**Distributed By:**

Coburn Technologies  
55 Gerber Road  
South Windsor, CT 06074

(714) 690-6470

Telephone: (800) 262-8761

**24-Hour Emergency Contact Number (North America):** 800-255-3924

**24-Hour Emergency Contact Number (International):** 813-248-0585

### Emergency Overview

Pale yellow, thin liquid with an alcohol odor. LTI-SHC-NT5 is flammable and may release hazardous combustion by-products. This product is stable under normal conditions but storage above 100 deg F for a prolonged time or direct exposure of UV to large open mass of the product may cause the product to polymerize rapidly resulting in significant heat generation, spattering hot material or bursting closed containers. Overexposure to this product may cause severe health effects

### SECTION 2: COMPOSITION (Hazardous Components First)

<u>Chemical Name</u>	<u>Synonyms</u>	<u>CAS#</u>
Propylene glycol monomethyl ether	PM Solvent	000107-98-2
N-Propoxypropanol	NA	001569-01-3
N-Propyl Alcohol	NA	000071-23-8
2-Propenoic acid, 1,6-Hexanediyl Ester	Hexanediol diacrylate	013048-33-4

(NOTE: See Section 8 of this MSDS for Exposure Guidelines)

### SECTION 3: Hazards Identification

#### Potential Health Effects

**INHALATION:** Harmful if inhaled. May cause dizziness, headache or nausea. Can irritate the nose and throat. Aerosols can be irritating to the respiratory passages.

**INGESTION:** Harmful if swallowed.

**SKIN CONTACT:** Causes skin irritation.

**EYE CONTACT:** Causes Eye Irritation.

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## Fire and Explosion

LTI-SHC-NT5 is a flammable liquid with a flash point of 91 deg. F SETA closed cup. Both the LEL and UEL have not been determined. Products of combustion include carbon dioxide and carbon monoxide, nitrogen oxides, acrid fumes and volatile organic fractions. The exact composition of the combustion by-products will depend on the conditions of combustion. In a fire situation, closed containers may rupture violently when exposed to heat. Toxic and/or irritating vapors may be released during a spill. Combustion by-products may be hazardous.  
(See Reactivity Section)

## SECTION 4: First Aid

### Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

### Skin:

In case of contact, immediately wash exposed skin with plenty of soap and water for at least 15 minutes. Seek medical advice if a rash or irritation persists. Wash clothing before reuse. Destroy contaminated shoes and other leather goods or apparel.

### Inhalation:

If affected by inhalation of vapor or spray mist, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give CPR. Get medical attention immediately.

### Ingestion:

If swallowed, seek medical advice immediately.

## SECTION 5: Fire Fighting Measures

Use dry powder, CO<sub>2</sub>, foam or water fog to extinguish fires involving this product. Water and/or water fog may cause frothing and should be applied carefully. SCBA and Full Body protection must be worn. Use water only to cool containers exposed to the heat of a fire. Contain water run-off from entering drains, streams and lakes. Disperse vapors using a fog pattern. Keep upwind of fire or vapor clouds.

## SECTION 6: Accidental Release Measures

### SMALL SPILLS (a pint or two)

Cover with absorbent material (Expanded vermiculite or kitty litter). When liquid is fully absorbed, sweep into a plastic bag.

### LARGE SPILLS

Prevent build-up of vapors, by covering with absorbent material. Pay particular attention to confined areas or storm drains. TURN OFF POWER AT A REMOTE SWITCH PANEL. Remember that turning equipment ON or OFF will cause an arc for possible ignition of vapor. Use spark-proof tools and conductive shoes to avoid sparking hazards. Dispose of in accordance with all applicable regulations.

## SECTION 7: Handling and Storage

LTI-SHC-NTX-5 is flammable and should be stored away from potential ignition sources. Keep away from heat, sparks and flame. Vapors may ignite explosively. Vapors may spread over long

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distances. Close container after each use. Drums should be grounded while dispensing. Do not get in eyes, on skin or on clothing. Use only with adequate ventilation.

### SECTION 8: Exposure Controls/Personal Protection

In that each work area varies, it is important that an Industrial Hygiene review be made of the process to establish exposure levels. Appropriate engineering controls should be designed and installed to prevent levels from exceeding the established TLV's. When engineering controls can not be put in place, air purifying respirators are required for exposures up to 10 times the TLV and positive pressure supplied for air respirators for exposure above 10 times the TLV. Ideally ventilation ducts must be tight so odors of the coating are not objectionable

Due to the potential harmful characteristics of LTI-SHC-NT5 care needs to be taken to prevent skin exposure. Suitable emergency shower facilities or other sufficient water supply is required to be available for emergency use. Eye protection including safety glasses and /or face shields should be worn whenever the potential exists that LTI-SHC-NT5 could attack the eye. This includes while dispensing or spraying if applicable. Good personal hygiene practices should be followed to prevent accidental consumption. This includes ensuring personnel wash after handling LTI-SHC-NT5 and prior to smoking, eating or consuming tobacco items like chewing tobacco or applying cosmetics.

#### Chemical Protective Equipment

<u>Butyl Rubber</u> 	<u>Viton</u> 	<u>Chlorinated Polyethylene</u> 	<u>Nitrile</u> 	<u>Urethane</u> 	<u>Vinyl</u> 	<u>Natural Rubber</u> 	<u>Neoprene</u> A
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A = Recommended

B = Minor to Moderate Effect

C = Conditional

X = Not Recommended

I = Insufficient Data to Rate

#### Exposure Guidelines

<u>Chemical Name</u>	<u>ACGHI</u>		<u>Other Limits</u>	<u>Source of Other Limits</u>
	<u>TLV</u>	<u>STEL</u>		
Propylene glycol monomethyl ether	100ppm	150ppm		
N-Propyl Alcohol	200	250		
2-Propenoic Acid, 1,6-Hexanediyl Ester	N/E			

Caution: Inhalation of mist may be harmful. Avoid repeated or proplonged breathing of spray mist. All other particles not otherwise classified such as dusts from sanding or mists from spraying should be maintained below 10 mg/m3 as recommended by the ACGIH.

### SECTION 9: Physical and Chemical Properties

Boiling Point - Degrees F:	>172
Specific Gravity:	0.96
Pounds/:Gallon:	8
Percent Volatiles:	55
Odor:	alcohol

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Color:	Pale yellow
Solubility (water):	<75%
Viscosity:	4.5 cps @25 deg. C
Physical State:	liquid
Dry Time:	ND
Melting Point - degrees F	ND
Vapor Pressure:	ND

### SECTION 10: Stability and Reactivity

Avoid exposure to light. LTI-SHC-NT5 may form peroxides if allowed to evaporate to dryness. These peroxides can be shock sensitive and explosive. LTI-SHC-NT5 or individual components may react with strong oxidizers, corrosives, surface active material, metallic compounds and heat. Reaction by-products may include carbon dioxide and carbon monoxide and acrid fumes and volatile organic fraction.

### SECTION 11: Toxicological Information

#### Acute Oral:

Harmful if Swallowed

#### Acute Dermal:

Skin sensitizer. May cause allergic skin reaction. May be harmful if absorbed through the skin

#### Inhalation Toxicity:

Harmful if inhaled. May effect the brain or nervous system causing dizziness, headache or nausea. Can irritate the nose and throat. May cause an allergic respiratory reaction similar to an asthma attack. Aerosols can be irritating to the respiratory passages.

#### Eye Irritation:

Causes Eye Irritation.

#### Skin Irritation:

Causes Skin Irritation.

#### Chronic Effects:

No adverse chronic health effects are expected from anticipated conditions of normal use of the product. However, chronic Ethanol exposure may affect the central nervous system, liver, blood and reproductive system. Hexanediol diacrylate has shown limited evidence of mutagenicity(in vitro).

### SECTION 12: Ecological Information

Not Evaluated.

### SECTION 13: Disposal Considerations

Based on our understanding of the federal hazardous waste regulations, LTI-SHC-NT5 is a federally defined characteristic waste due to flammability. LTI-SHC-NT5 contains (a) CERCLA listed hazardous substance(s). Improper disposal could result in environmental contamination and potential liability under Superfund. It is the user's responsibility to appropriately classify and dispose of all industrial wastes in compliance with all federal, state, municipal and local requirements.

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## SECTION 14: Transport Information

### HM 181 Required Information

DOT SHIPPING NAME:	CHEMICAL noi
EXPORT SHIPPING NAME:	COATING SOLUTION, 3,UN1139, PGIII
LABEL	FLAMMABLE LIQUID
RQ	None
DOT GUIDEBOOK:	26

### IATA Restrictions

	<u>Packing Instructions</u>	<u>Quantity Limits</u>
Passenger Air Exempt	Y309	10 L
Passenger Air	309	60 L
Cargo Air Only	310	220 L

## SECTION 15: Regulatory Information

### SARA Title III

<u>CAS#</u>	<u>Chemical Name</u>	<u>304</u>	<u>313</u>	<u>EHS</u>	<u>Wt%*</u>
000107-98-2	Propylene glycol monomethyl ether (PM)	NO	YES	NO	17
***CNK***	Acrylated Monomer	NO	NO	NO	
***CNK***	Photoinitiator	NO	NO	NO	

\*\*\*CNK\*\*\* - \*Some Components Not Known\*

\*SARA Regulated Components Only

### TSCA

All components comply with TSCA Inventory requirements.

### OSHA

LTI-SHC-NT5 is considered a hazardous chemical according to our interpretation of the OSHA Hazard Communication Standard.

### Hazard Ratings

	<u>HMIS</u>
HEALTH	3
FIRE	3
REACTIVITY	2
PERS. PROT. INDEX	NA

**Personal Protective Index**  
Because workplace conditions, environments and means of application differ, we cannot make specific recommendations

## SECTION 16: Other Information

### Information Contact:

Lens Technology I, LLC  
General Manager  
14256 Firestone Blvd.

# LTI-SHC-NT5 HARD COATING

La Mirada, CA 90638  
(714) 690-6470 (for questions and emergencies)  
(800) 535-5053---24 hour EMERGENCY / TRANSPORTATION NUMBER

## MSDS Review Committee Approval:

Prepared: Sung Y. Tark  
Technical Department-\_\_\_\_\_

February 7, 2007  
Date

Approved:  
General Manager-\_\_\_\_\_

February 7, 2007  
Date

**The data in this MSDS has been compiled from publicly available sources (some of which are identified below). This data relates only to the designated product and not to the use of said product in combination with other materials. Because conditions and circumstances of use of the product are beyond our control and any summary of data such as is represented by this MSDS is inherently incomplete, Lens Technology I, LLC makes no warranty about the accuracy of the data herein and assumes no liability for the use of such data. Responsibility for proper precautions and safe use of the product lies with the user.**

## SOURCES

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DANGEROUS PROPERTIES of INDUSTRIAL MATERIALS, 6th Edition, N. Irving Sax, Van Nostrand Reinhold Co., 1984  
SARA TITLE III - COMMUNITY RIGHT TO KNOW COMPLIANCE GUIDE, Professional Associates in Regulatory Services, 1987  
NIOSH POCKET GUIDE TO CHEMICAL HAZARDS, U.S. Department of Health & Human Services DHHS(NIOSH) Publication No.90-117, June 1990  
DANGEROUS GOODS REGULATIONS (IATA Resolution 618, attachment "A"), International Air Transport Association, 32nd Edition Effective 1/1/91 - 12/31/91

Abbreviations: NA = Not Applicable ND = Not Determined NR = Not Regulated