COBURN TECHNOLOGIES

Material Safety Data Sheet

SECTION 1: PRODUCT NAME AND COMPANY INFORMATION

Product Name: LTI-HT450 TINTABLE HARD COATING
Product Number: 8336600
Issue Date: May 25, 2011 **Supersedes Date:** February 7, 2007

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

(714) 690-6470

Distributed By:
Coburn Technologies
55 Gerber Road
South Windsor, CT 06074

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-HT450 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 drums. Overexposure to this product or its components may cause severe health effects that may not be reversible or could be fatal.

SECTION 2: COMPOSITION (Hazardous Components First)

Chemical Name	Synonyms	CAS#
Propylene glycol monomethyl ether	PM Solvent	000107-98-2
N-Propoxy propanol	Propasol	001569-01-3
N-Propanol	1-Propanol	000071-23-8
2-Propenoic acid, 1,6-Hexanediyl Ester	Hexanediol diacrylate	013048-33-4
Acrylated Monomer/Oligomer Blend	N/A	Proprietary
Photo Initiator	N/A	Proprietary

* The additive is considered as a non-OSHA regulated and non-carcinogenic by ingestion.
Contains some proprietary non-hazardous compounds that are not listed

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

SECTION 3: Hazards Identification

Potential Health Effects

INHALATION: 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.

INGESTION: Harmful if swallowed.

SKIN CONTACT: Causes skin irritation.

EYE CONTACT: Causes Eye Irritation.

Fire and Explosion

LTI-HT450 is a flammable liquid with a flash point of 89 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

Signs and Symptoms of Overexposure

Symptoms or signs of potential overexposure to LTI-HT450 or its components may include: headache, lethargy, skin rashes, hives, respiratory irritation resulting in coughing or wheezing, disoriented or drunkenness behavior, nausea, vomiting, eye reddening, conjunctivitis, itching, burning or other irritation of the skin and burning or other irritation of the eye.

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, C02, 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 liter). 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-HT450 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 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-HT450 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-HT450 could attack the eye. This includes while dispensing or spraying if applicable. Suitable emergency eye wash facilities or other sufficient water supply is required to be available for emergency use. Good personal hygiene practices should be followed to prevent accidental consumption. This includes ensuring personnel wash after handling LTI-HT450and prior to smoking, eating or consuming tobacco items like chewing tobacco or applying cosmetics.

Chemical Protective Equipment

Butyl Rubber	Viton	Chlorinated Polyethylene	Nitrile	Urethane	Vinyl	Natural Rubber	Neoprene
I	I	I	I	I	I	I	I

A = Recommended
B = Minor to Moderate Effect
C = Conditional
X = Not Recommended
I = Insufficient Data to Rate

Exposure Guidelines

Chemical Name	TLV	STEL	Other Limits	Source of Other Limits
Propylene glycol monomethyl ether	100ppm	150ppm	100ppm	

N-Propoxy propanol	None	
N-Propanol	200ppm	250ppm
Acrylated Monomer	N/D	
Additive	N/A	
Photo Initiator	N/A	

Caution: Inhalation of mist may be harmful. Avoid repeated or prolonged 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:	>200
Specific Gravity:	0.98
Pounds/:Gallon:	8.15
Percent Volatiles:	55
Odor:	alcohol
Color:	Pale yellow
Solubility (water):	<60%
Viscosity:	5.44 cps @25 deg. C
Physical State:	liquid
Dry Time:	ND
Melting Point - degrees F	ND
Vapor Pressure:	5.5

LTI-HT450 may form peroxides if allowed to evaporate to dryness. These peroxides can be shock sensitive and explosive. LTI-HT450 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 allergenic 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:
Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Contains a component considered to be mutagenic.

SECTION 12: Ecological Information:

Not Evaluated.

SECTION 13: Disposal Considerations:

Based on our understanding of the federal hazardous waste regulations, LTI-HT450 is a federally defined characteristic waste due to flammability. LTI-HT450 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.

SECTION 14: Transport Information:

HM 181 Required Information

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

IATA Restrictions

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

SECTION 15: Regulatory Information:

SARA Title III

CAS#	Chemical Name	304	313	EHS	Wt%*
000107-98-2	Propylene glycol monomethyl ether (PM)	NO	NO	NO	
001569-01-3	N-Propoxypropanol	NO	NO	NO	
000071-13-8	N-Propanol	NO	NO	NO	
CNK	Acrylated Monomer	NO	NO	NO	
	Additive	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-HT450 is considered a hazardous chemical according to our interpretation of the OSHA Hazard Communication Standard.

Hazard Ratings

	HMIS	NFPA
HEALTH	3	2
FIRE	2	2
REACTIVITY	0	0
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.
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

CHEMICAL GUIDE TO THE OSHA HAZARD COMMUNICATION STANDARD, Kenneth B. Clauski, Roytech Publications Inc., 1986

1990 EMERGENCY RESPONSE GUIDEBOOK: U.S. Department of Transportation, DOT P - 5800.4, 1987

DOCUMENTATIONS OF THE THRESHOLD LIMIT VALUES and BIOLOGICAL EXPOSURE INDICES, 5th Edition, American Conference of Governmental Industrial Hygienists, 1986

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