

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Thermo-Lag 3000 (95%) Part A

EXTINGUISHING MEDIA : Foam, carbon dioxide and dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES : Water spray may be used to cool unruptured containers. Firefighters must use self-contained breathing apparatus with a full face piece operated in a pressure demand mode to prevent inhalation of hazardous decomposition products. Use appropriate extinguishing media to control fire. Water may cause violent frothing if sprayed directly into containers of burning liquid.

UNUSUAL FIRE AND EXPLOSION HAZARDS : Keep away from heat, open flames, sparks and areas where static charge may be generated. Do not apply to hot surfaces due to possible fire and explosion risk. Sealed containers may rupture if overheated. Solvent vapors are heavier than air and may travel considerable distance to a source of ignition and flash back.

HAZARDOUS DECOMPOSITION PRODUCTS : Thermal oxidative decomposition can produce toxic gases, including oxides of nitrogen, hydrocarbon fragments and carbon monoxide.

SECTION V - REACTIVITY DATA

STABILITY	UNSTABLE STABLE	X	CONDITIONS TO AVOID: Not applicable.
INCOMPATIBILITY (MATERIALS TO AVOID) : Strong Oxidizers, Strong Bases, Acids, Amines			
HAZARDOUS POLYMERIZATION	MAY OCCUR WILL NOT OCCUR	X	CONDITIONS TO AVOID : Not applicable

SECTION VI - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE : See HAZARDOUS COMPONENTS list in Section III.

EFFECTS OF OVEREXPOSURE :

Inhalation of solvent vapors: Overexposure can cause nasal and respiratory irritation, anesthetic effects, dizziness, possible unconsciousness and asphyxiation, stupor, weakness, fatigue, headache and nausea.

Inhalation of free pigment dust: Overexposure can cause coughing wheezing, shortness of breath, restricted nasal passages and lung injury.

Eyes: Direct contact with product may result in eye irritation.

Skin: Prolonged or repeated contact with product may cause skin irritation.

Swallowing: Gastrointestinal irritation, nausea, vomiting, diarrhea, death, aspiration into the lungs which can be fatal.

CHRONIC (LONG TERM, CUMULATIVE): Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the vapors may be harmful or fatal.

PRIMARY ROUTES OF ENTRY: Eyes, Dermal and Inhalation

FIRST AID PROCEDURES :

If Inhaled: Remove to fresh air. Restore breathing if necessary. Administer oxygen if breathing difficulty persists and contact medical personnel for advice.

If in Eyes: Flush with flowing water immediately . May cause slight temporary eye irritation. Consult medical personnel if irritation persists .

If on Skin: Thoroughly wash exposed area with soap and water. Remove and wash contaminated clothing before reuse. Consult medical personnel if swelling or reddening occurs.

If Swallowed: Get immediate medical attention.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED : Remove all sources of ignition. Keep unnecessary people away. Contain spill with inert material (sand, earth, ect.) and transfer the material to containers for recovery or disposal. Keep spill out of sewers and open bodies of water. Use protective gloves, goggles and clothing. Maintain adequate ventilation and use respiratory protective devices, avoid the breathing of vapors.

WASTE DISPOSAL METHOD : Dispose of in accordance with Federal, state and local regulations regarding pollution.

SECTION VIII - SPECIAL PROTECTION INFORMATION

VENTILATION TYPE : Sufficient ventilation should be provided through both local and general exhaust to keep the air contaminant concentration below applicable OSHA Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values(TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

RESPIRATORY PROTECTION : Respiratory protective devices must be used, in conjunction with and as a back-up to engineering and administrative controls, to maintain TLV and PEL of airborne contaminants below the listed values for those hazardous ingredients identified in Section II of this MSDS. Observe OSHA regulations for respirator use (CFR 29 1910.134) whenever a respirator is needed. Particulate, chemical cartridge, air-purifying half-mask respirators can be used within certain limitations; consult the respirator manufacturer for specific uses and limitations. In confined, poorly ventilated areas where the airborne contaminant concentrations are heavy or unknown, the use of a NIOSH/MSHA approved fresh-air supplied respirator is mandatory.

PROTECTIVE GLOVES : Impervious, cotton lined rubber **EYE PROTECTION :** Chemical resistant splash goggles

OTHER PROTECTIVE EQUIPMENT: Use chemically resistant coveralls or apron to protect against skin and clothing contamination.

HYGIENIC PRACTICES: Wash hands and other contaminated skin areas with warm soap and water before eating.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE : Store in dry area. Keep closures tight and upright to prevent leakage. Do not store in high temperature areas or near fire or open flame.

WARRANTY STORAGE CONDITIONS

MAXIMUM AVERAGE TEMPERATURE (FOR WARRANTY PERIOD)	BELOW 80° F
MAXIMUM DAILY AVERAGE TEMPERATURE	BELOW 90° F

OTHER PRECAUTIONS : Use only with adequate ventilation. Avoid breathing of vapor or spray mist. Avoid contact with eyes and skin. In confined areas, wear an appropriate, properly fitted respirator. Do not take internally. Keep out of the reach of children. Do not reuse or alter containers without proper industrial cleaning. Do not weld or flame cut empty, uncleaned containers due to potential fire and explosion hazard.

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. It is the user's responsibility to determine the suitability of this information for the adoption of the necessary safety precautions. We reserve the right to revise Material Safety Data Sheets periodically as new information becomes available.

MATERIAL SAFETY DATA SHEET

DATE ISSUED: 2/01/2005

PRODUCT NAME: Thermo-Lag 3000 (95%) Part B

NU-CHEM, INC.
 2200 Cassens Dr.
 Fenton , MO 63026
 PHONE: (636) 349-1515

HMIS HAZARD RATINGS

LEAST	0	HEALTH HAZARD	2
SLIGHT	1	FLAMMABILITY HAZARD	3
MODERATE	2	REACTIVITY HAZARD	0
HIGH	3	MAXIMUM PERSONAL PROTECTION	B
EXTREME	4		

Emergency Telephone No. with Chemtrec 1-800-424-9300
 International (call collect) 703-527-3887

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: Thermo-Lag 3000 (95%) Part B D.O.T. HAZARD CLASS: Flammable Liquid
 PRODUCT CLASS: Subliming Coating Catalyst D.O.T. Shipping Name: Paint
 D.O.T. UN Number: UN1263

SECTION II - PHYSICAL DATA

APPEARANCE AND ODOR : Black viscous liquid, with Solvent and Mercaptan Type odor.

BOILING POINT (at 760 mm Hg): Not Applicable WEIGHT PER GALLON (lb.): 10.5±0.5
 VAPOR PRESSURE (at 20C or 68F): nil PERCENT VOLATILES BY VOLUME: <7 %
 EVAPORATION RATE (ether = 1): much slower VOLATILE ORGANIC CONTENT (VOC): 0.47 lb/gal
 VAPOR DENSITY : heavier than air SOLUBILITY IN WATER: very low

SECTION III - INGREDIENTS AND HAZARDS

TRADE NAME	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS	
			OSHA PEL	ACGIH TLV
Phenol	108-95-2	<1 by vol.	19 mg/m ³	19 mg/m ³
Tris-2,4,6-(dimethylamino-methyl) Phenol	90-72-2	2 by vol.	Not Established	
‡Fibrous glass, continuous filament (total dust) (respirable dust)	65997-17-3	0-3 by vol.	15 mg/m ³ 5 mg/m ³	10 mg/m ³
*Toluene	108-88-3	4 by wt.	200 ppm Primary Hazard:	50 ppm Narcosis

* Indicates toxic chemicals subject to the reporting requirements of Section 313 of Title III and of 40 CFR 372

Carcinogenicity of fibrous glass: NTP: No IARC: No Z List: No OSHA Reg: No

IARC categorized fibrous glass as not classifiable with respect to human carcinogenicity.

*Toluene Reportable Quantity: 1,000 lb. Concentration of Hazardous Substance: 4%

Reportable Quantity of Product: 25,000 lb.

*Phenol Reportable Quantity: 1,000 lb. Concentration of Hazardous Substance: 1%

Reportable Quantity of Product: 100,000 lb.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA**FLAMMABILITY CLASSIFICATION**

OSHA : Flammable Liquid, Class IC

DOT : Flammable Liquid, Class 3

FLASH POINT : 84 °F (29 °C)

TEST METHOD: TCC

FLAMMABILITY LIMITS

LEL: 1 %UEL: 7 %

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HAZARDOUS DECOMPOSITION PRODUCTS : Thermal oxidative decomposition can produce toxic gases, including oxides of nitrogen, carbon monoxide, NH₃ and smoke.

SECTION V - REACTIVITY DATA

STABILITY	UNSTABLE STABLE	X	CONDITIONS TO AVOID: Not applicable
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INCOMPATIBILITY (MATERIALS TO AVOID) : Strong Oxidizers, Acids

HAZARDOUS POLYMERIZATION	MAY OCCUR WILL NOT OCCUR	X	CONDITIONS TO AVOID : Not applicable
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