ESTRON CHEMICAL

THE EDGE OF INNOVATION

GHS COMPLIANT SAFETY DATA SHEET

TO COMPLY WITH *OSHA* HAZARD COMMUNICATION STANDARD *29 CFR.1910.1200*
& THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS

SECTION 1: IDENTIFICATION

PRODUCT NAME	Lumicryl® 103
MFR.'S CODE ID/SYNONYMS	Lumicryl® 103, DS9-44
CAS NUMBER	Mixture (*see Sections 3 or 8*)
PRODUCT USE	Resin solution for coatings
RESTRICTIONS ON USE	For industrial use only
MANUFACTURER/SUPPLIER	Estron Chemical, Inc.
ADDRESS	807 North Main Street, Calvert City, KY 42029 USA
GENERAL INFORMATION	(270) 395-4195
EMERGENCY TELEPHONE	CHEMTREC (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: *Danger*

GHS Classification

Physical	Health	Environmental
Flammable Liquid – Category 2	Acute Toxicity, Inhalation - Category 5 Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Specific Target Organ Toxicity, Single Exposure (Central Nervous System) – Category 3	Hazardous to the Aquatic Environment, Acute Hazard – Category 3

GHS Label

Symbols: Flame  Exclamation Mark 

Hazard Statements	Precautionary Statements
H225: Highly flammable liquid and vapour H315: Causes skin irritation H319: Causes serious eye irritation H333: May be harmful if inhaled H336: May cause drowsiness or dizziness H402: Harmful to aquatic life	*Prevention* P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking. P233: Keep container tightly closed. P240: Ground/bond container and receiving equipment. P241: Use explosion-proof electrical/ventilating/light/equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P264: Wash exposed skin thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection. *Response* P302+352: IF ON SKIN: Wash with plenty of soap and water. P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

	P304+340+312: 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. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P321: Specific treatment (see supplemental first aid instructions on this label) P332+313: If skin irritation occurs: Get medical advice/attention. P337+313: If eye irritation persists get medical advice/attention. P362+P364: Take off immediately all contaminated clothing and wash it before reuse. P370+378: In case of fire: Use foam, dry chemical powder, carbon dioxide or water fog to extinguish. *Storage* P403+233+235: Store in a well ventilated place. Keep container tightly closed. Keep cool. P405: Store locked up. *Disposal* P501: Dispose of contents/container to an authorized hazardous waste handler.

HAZARDS NOT OTHERWISE CLASSIFIED: None identified.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	%	CLASSIFICATION	H CODES
n-Butyl Acetate	123-86-4	20 - 24	Flammable Liquids – Category 3 Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Specific Target Organ Toxicity, Single Exposure (Central Nervous System) – Category 3 Hazardous to the Aquatic Environment, Acute Hazard – Category 3	H226 H315 H319 H336 H402
n-Propyl Acetate	109-60-4	33 - 37	Flammable Liquid – Category 2 Eye Irritation – Category 2A Specific Target Organ Toxicity – Single Exposure - Category 3 Hazardous to the Aquatic Environment, Acute Hazard – Category 3	H225 H319 H336 H402
Tricyclodecane dimethanol diacrylate	42594-17-2	0 - 2	Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Specific Organ Toxicity, Single Exposure (Respiratory System) – Category 3 Hazardous to the Aquatic Environment, Acute Hazard – Category 1 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2	H315 H319 H335 H400 H411

(See Section 8 for Exposure Limits)

NON-HAZARDOUS INGREDIENTS	CAS #	%
Acrylic Polymers	Proprietary	42 - 46

SECTION 4: FIRST-AID MEASURES

SYMPTOMS OF EXPOSURE

ACUTE	Drowsiness or dizziness. Temporary mild skin or eye irritation. Nausea.
DELAYED	Stinging, tearing, redness and swelling of the eyes. Redness or burning of the skin. Headache. Nausea. Unconsciousness.
INHALATION	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. If breathing is labored or with coughing, give 100% supplemental oxygen. If not breathing begin artificial respiration and get medical aid.

SKIN CONTACT	Causes skin irritation. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash thoroughly with soap and water. If skin irritation persists, consult a doctor.
EYE CONTACT	Causes serious eye irritation. Wash exposed skin thoroughly after handling. 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.
INGESTION	Do not induce vomiting unless directed by medical personnel. If ingested, seek medical attention.
SPECIFIC TREATMENT	No other specific treatments are known or have been identified.

SECTION 5: FIRE FIGHTING MEASURES

FLAMMABILITY CLASSIFICATION	Flammable Liquid Class IB
FLAMMABLE LIMITS	LEL: 1.7 %, by volume of solvent. UEL: 8.0 %, by volume of solvent.
HAZARDOUS COMBUSTION PRODUCTS	Carbon Dioxide, Carbon Monoxide. Caustic soda may induce vigorous polymerization of the resinous material at temperatures around 200 °C.
EXTINGUISHING MEDIA	Dry Chemical, Foam, CO_2., Water Fog
UNUSUAL FIRE AND EXPLOSION HAZARDS	Solvent vapors may travel in the work place. Since even residual amounts can ignite explosively, ensure all ignition sources are removed from the area. Solid stream of water may spread fire. Caustic soda may induce vigorous polymerization of the resinous material at temperatures around 200 °C.
SPECIAL FIRE FIGHTING PROCEDURES	Wear self-contained breathing apparatus and protective suit when fighting fire. Solid streams of water may spread the fire.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS	As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full (Bunker) protective gear

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
PROTECTIVE EQUIPMENT	See Personal Protective Equipment in Section 8.
EMERGENCY PROCEDURES	Avoid unnecessary exposure to bystanders, prevent contact with open flames or high heat sources. Isolate the area and eliminate all ignition sources. Ground and bond all containers and handling equipment. Pump with explosion-proof equipment.
ENVIRONMENTAL PRECAUTIONS	Obey relevant local, state, provincial and federal laws and regulations. Do not allow the product to enter public drainage systems or open water courses.
METHODS AND MATERIALS FOR CLEANING UP	Absorb the product onto vermiculite, floor absorbent or other absorbent materials, such as dry-lime, sand, or soda ash. Sweep or scoop into a suitable container for disposal. Ventilate area and wash spill site after material pickup is complete.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors. Use with adequate ventilation. Ground and bond all containers and handling equipment. Handle in accordance with good industrial hygiene and safety practice. Take precautionary measures against static discharges. Emptied containers may still be hazardous. Do not cut, drill, grind, weld or perform similar actions on or near empty containers. Wear appropriate protective equipment when handling this material (See Section 8). At room temperature, this product has a pourable viscosity. Therefore, material transfer and processing does not necessitate heating.
CONDITIONS FOR SAFE STORAGE	This material contains an inhibitor, MEHQ, which in the presence of air enhances shelf life stability. Store unopened containers of this product at or below 20 ºC away from direct sunlight, ignition sources, and heat sources. The product shelf life is two years from date of manufacture in an unopened container stored at 20 °C. Unexpected or uncontrolled temperature excursions during shipping, transit storage, and final storage

may adversely affect useful shelf life and is beyond the manufacturers control or responsibility. Store in cool, dry, well-ventilated areas. Keep containers closed.
This product can polymerize prematurely under improper storage conditions. Therefore, store this product in tightly closed containers in a properly vented storage area away from heat, sparks, open flame, strong oxidizers, radiation, direct sunlight, and materials which may generate free radicals (e.g. initiators). Prevent moisture exposure and contamination by foreign materials. Use only non-sparking tools and limit storage time.
Store all products in epoxy-phenolic lined carbon steel, stainless steel or polyethylene lined drums or glass containers. The following steps are further recommendation to prevent premature polymerization.

- maintain a head of airspace in storage containers to support the oxygen requirements of the inhibitors, do not blanket with inert gases
- avoid contact with contaminants such as iron and copper (which can initiate polymerization)
- check inhibitor levels periodically

Product is packaged with inhibitor(s). Unless inhibited, product can polymerize, raising temperature and pressure which could result in possible catastrophic container rupture. Check inhibitor content periodically, adding to bulk material if needed. In addition, the product's inhibitor(s) require the presence of dissolved oxygen. Maintain, at a minimum, the original headspace in the product container and do not blanket or mix with oxygen-free gas as it renders inhibitor ineffective. Ensure air space (oxygen) is present during product heating/melting.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENTS	CAS #	%	ACGIH TLV	OSHA PEL
Acrylic Polymers	Proprietary	42 - 46	*None established*	*None established*
n-Butyl Acetate	123-86-4	20 - 24	150 ppm	150 ppm
n-Propyl Acetate	109-60-4	33 - 37	200 ppm	200 ppm
Tricyclodecane dimethanol diacrylate	42594-17-2	0 - 2	*None established*	*None established*

APPROPRIATE ENGINEERING CONTROLS Showers, eyewash stations and explosion-proof ventilation systems.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE	Chemical splash goggles or face shield.
SKIN	Wear resistant gloves (consult you safety equipment supplier) and impervious protective clothing as appropriate to prevent skin contact.
RESPIRATORY	An appropriate NIOSH approved respirator where exposure limits are exceeded.
HYGIENE MEASURES	Handle in accordance with good industrial hygiene and safety practices. When using, do not eat, drink or smoke. Wash face and hands before breaks and at the end of work. Wash contaminated clothing before re-use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear liquid	ODOR	Strong, esteric
ODOR THRESHOLD	No test data available	pH	No test data available
MELTING POINT	No test data available	BOILING POINT/RANGE	102 °C (216 °F)
FLASH POINT	57 °F (14°C) closed cup	EVAPORATION RATE	No test data available
FLAMMABILITY	Flammable Liquid Class IB		
FLAMMABLE LIMITS	LOWER 1.7 %, *by volume of solvent*	UPPER 8.0 %, *by volume of solvent*	
VAPOR PRESSURE	No test data available	VAPOR DENSITY	3.75 (Air = 1)
RELATIVE DENSITY	No test data available	SOLUBILITY IN H_2O	*Solvent* – Miscible *Polymers* - Nil
PARTITION COEFFICIENT (n-octanol/water)	No test data available	AUTOIGNITION TEMPERATURE	380 °C (716 °F)
DECOMPOSITION TEMPERATURE	> 170 °C (Polymer)	VISCOSITY	No test data available
% VOLATILE	54 – 58%	SOFTENING POINT	No test data available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY	This product does not pose a significant reactivity hazard when stored appropriately (see Section 7).
STABILITY	This product is stable when stored appropriately, although drums of this product may build pressure during shipment or during storage after receipt (see Section 7 for more details regarding handling and storage). Product can polymerize with exposure to heat or light.
CONDITIONS TO AVOID	All ignition sources, heat and open flames.
INCOMPATIBILE PRODUCTS	Strong oxidizers and caustic soda.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen and Sulfur.
POSSIBILITY OF HAZARDOUS REACTIONS	Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

SYMPTOMS OF EXPOSURE

ACUTE	Drowsiness or dizziness. Temporary mild skin or eye irritation. Nausea.
DELAYED	Stinging, tearing, redness and swelling of the eyes. Redness or burning of the skin. Headache. Nausea. Unconsciousness.

ACUTE TOXICITY

INHALATION	Harmful if inhaled. May cause drowsiness or dizziness.			
SKIN	Causes skin irritation.			
EYES	Causes serious eye irritation.			
INGESTION	Harmful if swallowed – may enter lungs if swallowed or vomited.			
INHALATION TOXICITY	LC_{50} Rat, 4 hours	123-86-4	390 mg/l	
		109-60-4	32 mg/l	
		42594-17-2	Not established	
		Polymers	Not established	
DERMAL TOXICITY	LD_{50} Rabbit	123-86-4	>17600 mg/kg	
		109-60-4	>17800 mg/kg	
		42594-17-2	Not established	
		Polymers	Not established	
SKIN IRRITATION	Draize, Rabbit, 24 hours	123-86-4	500 mg/m^3	Moderate
		109-60-4		Not an irritant
		42594-17-2		Not established
		Polymers		Not established
EYE IRRITATION	Human	123-86-4	300 ppm	Moderate
	Draize, Rabbit, 24 hours	123-86-4	100 mg	Moderate
		109-60-4	500 mg	Moderate
		42594-17-2		Not established
		Polymers		Not established
ORAL TOXICITY	LD_{50} Rat	123-86-4	>10000 mg/kg	
		109-60-4	8,700 mg/kg	
		42594-17-2	Not established	
		Polymers	Not established	
SENSITIZATION	Draize, Rabbit		No data available	

CHRONIC EFFECTS

CARCINOGENICITY	Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65
MUTAGENIC EFFECTS	None known

REPRODUCTIVE TOXICITY	None known
TARGET ORGAN EFFECTS	Narcotic Effects (Inhalation)

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY	Harmful to aquatic life.		
TOXICITY TO FISH	LC_{50} Pimephales promelas, 96 h	123-86-4	18 mg/l
		109-60-4	60 mg/l
		42594-17-2	
		Polymers	Not established
TOXICITY TO DAPHNIA	EC_{50} Daphnia magna, 48 h	123-86-4	44 mg/l
	EC_{50} Daphnia magna, 24 h	109-60-4	91.5 mg/l
		42594-17-2	Not established
		Polymers	Not established
TOXICITY TO ALGEA	EC_{50} Desmodesmus subsp., 72 h	123-86-4	675 mg/l
	EC_{50} Pseudokirchneriella subc., 72 hours	109-60-4	672 mg/l
		42594-17-2	Not established
		Polymers	Not established
PERSISTANCE AND DEGRADABILITY	*Solvents* – Readily biodegradable. *Polymers* - No data available		
BIOACCUMULATIVE POTENTIAL	No data available		
MOBILITY IN SOIL	No data available		
OTHER ADVERSE EFFECTS	None known		

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Dispose of in accordance with local, state and federal regulations. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Empty containers may retain some product residues. Vapor from product residues may create a flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been thoroughly cleaned. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3.

US EPA WASTE NUMBER & DESCRIPTION No information available

SECTION 14: TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

U.S. DOT
Proper Shipping Name: Resin Solution, *flammable*
Classification: 3
UN#: 1866
Packing Group: II
Hazard Label: Flammable Liquid

ICAO / IATA
Proper Shipping Name: Resin Solution, *flammable*
Classification: 3
UN#: 1866
Packing Group: II
Hazard Label: Flammable Liquid

IMDG
Proper Shipping Name: Resin Solution, *flammable*
Classification: 3
UN#: 1866
Packing Group: II
EmS#: F-E, S-D
Hazard Label: Flammable Liquid

ADR/RID
Proper Shipping Name: Resin Solution, *flammable*
Classification: 3
UN#: 1866
Packing Group: II
Hazard Label: Flammable Liquid

SECTION 15: REGULATORY INFORMATION

The components in this product are either listed or exempt from listing due to polymer exemption criteria for the following chemical listing inventories as indicated by an "X":

AICS	Australian Inventory of Chemical Substances	**X**
DSL	Canadian Domestic Substances List	**X**
ECL	Korean Existing Chemicals List	
ENCS	Japanese Existing and New Chemical Substances	
IECSC	Inventory of Existing Chemical Substances in China	**X**
NDSL	Canadian Non-Domestic Substances List	
NZIoC	New Zealand Inventory of Chemicals	**X**
PICCS	Philippines Inventory of Chemicals and Chemical Substances	
SWISS	Giftelist 1 and Inventory of Notified New Substances	
TCSI	Taiwan Chemical Substances List	
TSCA	US Toxic Substances Control Act	**X**
VNECI	Vietnam National Existing Chemical Inventory	**X**

INTERNATIONAL REGULATIONS

EU REGULATION — (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization, *Substances of Very High Concern*: This product does not contain any SVHC listed substances.

C.D. 96/82/EC — Council Directive 96/82/EC, Annex I not mentioned by name. With regard to possibly appropriate decomposition products see Chapter 10.

FEDERAL REGULATIONS

SARA 313 — This product does not contain any chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA Section 311/312 (40 CFR 370) Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Pressure Hazard	No
Reactivity Hazard	No

CERCLA — This product, as supplied, contains substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this product.

n-Butyl Acetate (123-86-4): 5000 lb final RQ; 2270 kg final RQ.

CLEAN WATER ACT — This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CLEAN AIR ACT — This product does not contain any substances regulated as hazardous air pollutants (HAPS under Section 112 of the Clean Air Act Amendments of 1990.

OTHER FEDERAL — None known

U.S. STATE REGULATIONS

RIGHT TO KNOW — The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in Sections 2 and 15 of this Safety Data Sheet.

CALIFORNIA PROP 65 — This product may contain trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity.

SECTION 16: OTHER INFORMATION

DISCLAIMER	This product is intended for industrial use only and should be used in accordance with the manufacturer's recommendations. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. This SDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).
DATE OF REVISION	September 23, 2020, *replaces the September 8, 2020 version*
REASON FOR REVISION	Updated information in Sections 3 and 7.
SDS PREPARED BY	Glen Pearson
SDS APPROVED BY	Robert Auerbach