



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 [®] 1000
MFR.'S CODE ID/SYNONYMS	Lumicryl [®] 1000
CAS NUMBER	Proprietary
PRODUCT USE	UV Curable Acrylic Resin
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: *None*

GHS Classification

Physical	Health	Environmental
<i>None</i>	<i>None</i>	<i>None</i>

GHS Label

Symbols: <i>No symbol</i>	
Hazard Statements None	Precautionary Statements None

HAZARDS NOT OTHERWISE CLASSIFIED: None identified.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	%	CLASSIFICATION	H Codes
Acrylic Acid	79-10-7	< 0.5	Flammable Liquid – Category 3 Acute Toxicity (Oral, Inhalation) – Category 4 Skin Corrosion/Damage – Category 1A Serious Eye Damage/Irritation – Category 1 Specific Organ Toxicity, Single Exposure – Category 3 Hazardous to the Aquatic Environment, Acute Hazard – Category 1 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2	H226 H302, H332 H314 H318 H335 H400 H411

(See Section 8 for Exposure Limits)

NON-HAZARDOUS INGREDIENTS	CAS #	%
Acrylic Esters	Proprietary	99.5 - 100

SECTION 4: FIRST-AID MEASURES

SYMPTOMS OF EXPOSURE

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

INHALATION No significant signs or symptoms indicative of any adverse health hazard are expected to occur at standard conditions due to the low volatility of this material. However, aerosols, or vapors which may be generated at elevated processing temperatures, may cause respiratory tract irritation. Symptoms of irritation may include coughing, mucous production and shortness of breath. If inhaled, remove to fresh air.

SKIN CONTACT May be mildly irritating to the skin. Wash thoroughly with soap and water. If skin irritation persists, consult a doctor.

EYE CONTACT May be mildly irritating to the eyes. Wash with plenty of water for 15 minutes. Consult a physician.

INGESTION If ingested, seek medical attention.

SPECIFIC TREATMENT No other specific treatments are known or have been identified.

SECTION 5: FIRE FIGHTING MEASURES

FLAMMABILITY CLASSIFICATION Not regulated

FLAMMABLE LIMITS No test data available

HAZARDOUS COMBUSTION PRODUCTS Acrid smoke-fumes/carbon monoxide/carbon dioxide and perhaps other toxic vapors may be released during a fire involving this product.

EXTINGUISHING MEDIA Dry Chemical, Water Fog, CO₂

UNUSUAL FIRE AND EXPLOSION HAZARDS High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerizing reaction generating heat/pressure. Closed containers may rupture or explode during runaway polymerization.

SPECIAL FIRE FIGHTING PROCEDURES Do not enter fire area without proper protection. Fight fire from safe distance/protected location. Heat/impurities may increase temperature, build pressure and rupture closed containers, spreading the fire, increasing the risk of burns and other injuries. Water may be ineffective in firefighting due to low solubility. Use water spray or fog for cooling. Pressure relief system may plug with solids, increasing risk of overpressure. Notify authorities if liquid enters sewer or public waters.

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.

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.

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 Cover with dry-lime, sand, or soda ash as absorbants. Mechanically place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete. Send in suitable containers for recovery or disposal.

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.

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. However, under certain conditions, such as cold temperatures, the viscosity may increase and this product may require heating to facilitate handling. To facilitate product transfer from original container, product may be heated to 40 °C/104 °F for not more than 24 hours. Do NOT use localized heat sources such as band heaters to heat/melt product. Do NOT use steam. Hot boxes or hot rooms are recommended for uniform heating/melting of material. The hot box or hot room should be set at a maximum temperature of 40 °C/104 °F. Do not overheat--this may compromise product quality and/or result in an uncontrolled polymerization. If product freezes, heat as indicated above and mix gently to redistribute the inhibitor. Product should be consumed in its entirety after heating/melting—DO NOT subject to multiple "re-heats" which may affect product quality or result in product degradation.

CONDITIONS FOR SAFE STORAGE This material contains an inhibitor, MEHQ, which in the presence of air enhances shelf life stability. If stored under the recommended conditions (65-75 °F), the shelf life of this product is at least 3 months from receipt for optimum product performance. Store in cool, dry, well-ventilated areas. Keep containers closed. Do not store near extreme heat, open flame or sources of ignition.

This material contains an aerobic inhibitor that in the presence of air enhances shelf life stability. Store unopened containers of this product at or below 25°C away from direct sunlight, ignition sources, and heat sources. Properly stored material can be expected to have a useful shelf life of at least 3 months. 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.

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 containers at temperatures below 25 °C.

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	99.5 - 100	<i>None established</i>	<i>None established</i>
Acrylic Acid	79-10-7	< 0.5	<i>2 ppm</i>	<i>2 ppm</i>

APPROPRIATE ENGINEERING CONTROLS Showers, eyewash stations and ventilation systems.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE	Chemical splash goggles.
SKIN	Impervious protective gloves and clothing as appropriate to prevent skin contact. Do not use latex gloves.
RESPIRATORY	No occupational exposure standards have been developed for this material. Where exposure through inhalation may occur from use, NIOSH/MSHA approved respiratory protection equipment is recommended.
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	Mild, esteric
ODOR THRESHOLD	No test data available	pH	No test data available
MELTING POINT	No test data available	BOILING POINT/RANGE	>200 °C
FLASH POINT	Over 200 °F	EVAPORATION RATE	No test data available
FLAMMABILITY	Not regulated		
FLAMMABLE LIMITS	LOWER Not established	UPPER	Not established
VAPOR PRESSURE	No test data available	VAPOR DENSITY	No test data available
RELATIVE DENSITY	Not established	SOLUBILITY IN H ₂ O	Not readily soluble
PARTITION COEFFICIENT (n-octanol/water)	No test data available	AUTOIGNITION	
DECOMPOSITION		TEMPERATURE	No test data available
TEMPERATURE	> 250 °C	VISCOSITY	No test data available
% VOLATILE	< 0.1 %	SOFTENING POINT	No test data available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY	Product can polymerize with exposure to heat or light and in the absence of oxygen. This product does not pose a significant reactivity hazard when stored appropriately (see Section 7).
STABILITY	This product is stable when stored appropriately (see Section 7).
CONDITIONS TO AVOID	High temperatures, localized heat sources (ie, drum or band heaters), oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, inert gas blanketing.
INCOMPATIBLE PRODUCTS	Strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers.
HAZARDOUS DECOMPOSITION PRODUCTS	Acrid smoke-fumes/carbon monoxide/carbon dioxide and perhaps other toxic vapors may be released during a fire involving this product.
POSSIBILITY OF HAZARDOUS REACTIONS	May occur.

SECTION 11: TOXICOLOGICAL INFORMATION

SYMPTOMS OF EXPOSURE	
ACUTE	Temporary mild skin or eye irritation.
DELAYED	Stinging, tearing, redness and swelling of the eyes. Redness or burning of the skin.
ACUTE TOXICITY	
INHALATION	May be irritating if heated past the decomposition point.
SKIN	In some cases, eye contact will cause mild, but reversible, irritation.
EYES	In some cases, skin contact will cause mild, but reversible, irritation.

INGESTION	Not likely to have harmful effects in normal exposures, may cause nausea or gastric distress if ingested in quantity.		
INHALATION TOXICITY	LC ₅₀ Rat	Acrylic Acid Acrylic Esters	> 5.1 mg/m ³ 4 h (No deaths occurred) Not established
DERMAL TOXICITY	LD ₅₀ Rat	Acrylic Acid Acrylic Esters	> 2,000 mg/kg Not established
SKIN IRRITATION		Acrylic Acid Acrylic Esters	Severe burns 3 minutes Not established
EYE IRRITATION		Acrylic Acid Acrylic Esters	Serious Damage Not established
ORAL TOXICITY	LD ₅₀ Rat	Acrylic Acid Acrylic Esters	317 – 1,405 mg/kg Not established
SENSITIZATION	Draize, Rabbit		Not established
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	None known		

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY	Not known to be harmful to aquatic life.		
TOXICITY TO FISH	LC ₅₀ Oncorhynchus mykiss, 96 h	Acrylic Acid Acrylic Esters	27 mg/l Not established
TOXICITY TO DAPHNIA	EC ₅₀ Daphnia magna, 48 h	Acrylic Acid Acrylic Esters	96 mg/l Not established
TOXICITY TO ALGAE	EC ₅₀ Psuedokirchn. subc., 96 h	Acrylic Acid Acrylic Esters	0.17 mg/l Not established
PERSISTANCE AND DEGRADABILITY	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	Non-contaminated, properly inhibited product is not a RCRA hazardous waste. However, contaminated product/soil/water may be RCRA/OSHA hazardous waste due to potential for internal heat generation (see 40 CFR 261 and 29 CFR 1910). It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste. Comply with all applicable federal, state and local regulations. Use registered transporters. Disposal options include landfilling solids at permitted sites; fuel blending or incinerating liquids. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade; avoid overloading / poisoning plant biomass. Assure effluent complies with applicable regulations.
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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.

DOT	Not regulated	TDG	Not regulated	MEX	Not regulated
ICAO	Not regulated	IATA	Not regulated	IMDG/IMO	Not regulated
RID	Not regulated	ADR	Not regulated	ADN	Not regulated

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	
ECN	Taiwan Chemical Substances List	
EINECS	European Inventory of Existing Commercial Chemical Substances	X
ELINCS	European List of Notified Chemical Substances	
ENCS	Japanese Existing and New Chemical Substances	
IECSC	Inventory of Existing Chemical Substances in China	X
ISRAEL	Proposed Israel Hazardous Substances List	
NDSL	Canadian Non-Domestic Substances List	
NZIoC	New Zealand Inventory of Chemicals	X
PICCS	Philippines Inventory of Chemicals and Chemical Substances	
SWISS	Giftliste 1 and Inventory of Notified New Substances	
TSCA	US Toxic Substances Control Act	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.

EINECS All of the components of this product are included on the European Inventory of Existing Commercial Chemical 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	No
Chronic Health Hazard	No
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	Yes

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.

2-Propenoic Acid (acrylic acid, 79-10-7): 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) (*styrene*) 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 November 28, 2016, *replaces November 10, 2016 version.*

REASON FOR REVISION Updated the Hazards and Warnings in Sections 2, 3 4, 10, 11 and 15 based on the latest supplier information and re-evaluation of the risk posed by the final product mix using OSHA Guidelines. Re-formatted Section 3 to differentiate between Hazardous and Non-Hazardous Ingredients.

SDS PREPARED BY Glen Pearson

SDS APPROVED BY Robert Auerbach