

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards

MSDS Revision: 1.1

MSDS Revision Date: 11/01/2006

1. PRODUCT IDENTIFICATION

1.1	Product Name: CLARITÉ CURING RESIN®
1.2	Chemical Name: CYANOACRYLATE MIXTURE
1.3	Synonyms: NA
1.4	Trade Names: NA
1.5	Product Use: PROFESSIONAL OR SUNDRY USE ONLY
1.6	Distributor's Name: OPI PRODUCTS, INC.
1.7	Distributor's Address: 13034 SATICOY STREET, NO. HOLLYWOOD, CA 91605 USA
1.8	Emergency Phone: CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300
1.9	Business Phone: +1 (818) 759-2400 / +1 (800) 341-9999

2. HAZARD IDENTIFICATION

2.1	Hazard Identification: This product is classified as a hazardous substance and as dangerous goods according to the classification criteria of NOHSC and ADG Code (Australia).						
2.2	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
2.3	Effects of Exposure: INGESTION: If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression. EYES: Eye irritant. Vapor of this product may be mildly to moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering. SKIN: Warning! This product will bond skin instantly. May be irritating to skin in some sensitive individuals, especially after prolonged or repeated skin contact. INHALATION: Vapors of this product may be slightly irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing. Inhalation of high concentrations of vapors can cause central nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).						
2.4	Symptoms of Overexposure: EYES: Eye irritant. Overexposure of vapor in eyes may cause redness, itching and watering. SKIN: Bonds skin instantly. Symptoms of skin overexposure in some sensitive individuals may include redness, itching, and irritation of affected areas. INHALATION: Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing.						
2.5	Acute Health Effects: EYES: Vapors of this product may be mildly to moderately irritating to the eyes and mucous membranes. Symptoms of overexposure may include redness, itching, irritation and watering. SKIN: Mild to moderate irritation to skin near affected areas. INHALATION: High concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.						
2.6	Chronic Health Effects: None known.						
2.7	Target Organs: Eyes, skin & respiratory system.						

NA = Not Available; ND = Not Determined; NE = Not Established; C = Ceiling Limit; See Section 16 for Additional Definitions of Terms Used
 NOTE: all WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-2004 format.

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3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³)					
					ACGIH		OSHA			OTHER
					TLV ppm	STEL ppm	PEL ppm	STEL ppm	IDLH ppm	
ETHYL CYANOACRYLATE	7085-85-0	UD3330050	230-391-5	> 75.0	0.2	NE	NE	NE	NE	
POLYMETHYL METHACRYLATE	9011-14-7	TR0400000	201-297-1	< 25.0	100	NE	100	NE	NE	
OTHER COMPONENTS PRESENT IN LESS THAN 1% CONCENTRATION				BAL	THE REMAINING COMPONENTS DO NOT CONTRIBUTE ANY SIGNIFICANT ADDITIONAL HAZARDS					

4. FIRST AID MEASURES

4.1	First Aid:
	INGESTION: DO NOT INDUCE VOMITING. Contact ChemTrec at 703-527-3887 or the nearest Poison Control Center or local emergency telephone number for assistance and instructions. Seek immediate medical attention. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration. SKIN: This product bonds skin immediately. Do not pull. Peel slowly using acetone or CND Product Remover (use lukewarm water only for product removal, if skin bonding has occurred near the eyes). If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician. EYES: Do not try to open the eye. Flush with cool water for at least 15 minutes. Contact a physician immediately. INHALATION: Remove victim to fresh air at once. Under extreme conditions, if breathing stops, perform artificial respiration and seek immediate medical attention.
4.2	Medical Conditions Aggravated by Exposure: None known.

5. FIREFIGHTING MEASURES

5.1	Flashpoint & Method: < 85 °C (181 °F) CC				
5.2	Autoignition Temperature: ND				
5.3	Flammability Limits:	Lower Explosive Limit (LEL):	ND	Upper Explosive Limit (UEL):	ND
5.4	Fire & Explosion Hazards: Rapid polymerization may occur at very high temperatures.				
5.5	Extinguishing Methods: CO₂, Halon, Dry Chemical				
5.6	Firefighting Procedures: When involved in a fire, this product will ignite readily and decompose to produce oxides of carbon and nitrogen and hydrogen cyanide. First responders should wear eye protection. Structural firefighters must wear SCBAs and full protective equipment. Use a water spray or fog to reduce or direct vapors. Water may not be effective in actually extinguishing a fire involving this product.				

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6. ACCIDENTAL RELEASE MEASURES

- 6.1 Spills:
Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment.
For small spills (e.g., <1 gallon) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows). Remove spilled material and place into appropriate closed container(s) for disposal. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas and outside of container with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse.
For spills ≥ 1 gallon, deny entry to all unprotected individuals. Transfer to containers for recovery or for proper disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.

7. HANDLING & STORAGE INFORMATION

- 7.1 Work & Hygiene Practices:
Avoid prolonged or repeated skin contact. Avoid breathing vapors of this product. Use eye protection when using this product. Do not eat, drink or smoke while handling product.
- 7.2 Storage & Handling:
Keep container closed tightly when not in use. Empty container may contain residual amounts of this product; therefore, empty containers should be handled with care.
Store containers in a cool, dry location, away from sources of intense heat. Store away from incompatible materials (see Section 10, Stability and Reactivity).
- 7.3 Special Precautions:
Open containers slowly on a stable surface. Keep container tightly closed when not in use. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

- 8.1 Ventilation & Engineering Controls:
Use in a well ventilated location (e.g., local exhaust ventilation, fans).
- 8.2 Respiratory Protection:
No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134, or applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, E.C. member states, or Australia.
- 8.3 Eye Protection:
Use eye protection when using any amount of this product. This product is irritating to the eyes.
- 8.4 Hand Protection:
Warning! This product will bond skin instantly. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, of the E.C. member states.
- 8.5 Body Protection:
No apron required when handling small quantities.
When handling large quantities (e.g., ≥ 1 gallon), eye wash stations and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water.

HEALTH**2****FLAMMABILITY****1****REACTIVITY****2****PROTECTIVE EQUIPMENT****A****EYES**

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9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Density:	1.04
9.2	Boiling Point:	> 374 °F (> 190 °C)
9.3	Melting Point:	ND
9.4	Evaporation Rate:	ND
9.5	Vapor Pressure:	< 0.3 mm Hg @20 °C
9.6	Molecular Weight:	NA
9.7	Appearance & Color:	Transparent thixotropic low viscosity gel. Sharp, irritating acrylic odor
9.8	Odor Threshold:	ND
9.9	Solubility:	Insoluble in water.
9.10	pH	NA
9.11	Viscosity:	40 cp
9.12	Other Information:	Vapor density > 1 (air = 1)

10. STABILITY & REACTIVITY

10.1	Stability:	Stable under ambient conditions when stored properly (see Section 7, Storage and Handling).
10.2	Hazardous Decomposition Products:	If exposed to extremely high temperatures, the products of thermal decomposition may include irritating vapors and carbon oxide gases and hydrogen cyanide (e.g., CO, CO ₂ , HCN).
10.3	Hazardous Polymerization:	May occur, if exposed to extremely high temperatures or exposed to moisture.
10.4	Conditions to Avoid:	Exposure to or contact with extreme temperatures, strong light sources or incompatible materials.
10.5	Incompatible Substances:	This product is incompatible with strong oxidizers (e.g., peroxides, super oxides), strong acids (e.g., hydrochloric or muriatic acids), or strong bases (e.g., lye, potassium hydroxide).

11. TOXICOLOGICAL INFORMATION

11.1	Toxicity Data:	This product has not been tested on animals to obtain toxicological data. There are toxicology data for the components of this product, which are found in the scientific literature. These data have not been presented in this document.
11.2	Acute Toxicity:	See Section 2.5
11.3	Chronic Toxicity:	See Section 2.6
11.4	Suspected Carcinogen:	NE
11.5	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.
	Teratogenicity:	This product is not reported to cause teratogenic effects in humans.
	Reproductive Toxicity:	This product is not reported to cause reproductive effects in humans.
11.6	Irritancy of Product:	See Section 2.3
11.7	Biological Exposure Indices:	NE
11.8	Physician Recommendations:	Treat Symptomatically.

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12. ECOLOGICAL INFORMATION

12.1	Environmental Stability: This product will slowly volatilize from soil. Components of this product will slowly decompose into organic compounds.
12.2	Effects on Plants & Animals: There are no specific data available for this product.
12.3	Effects on Aquatic Life: There are no specific data available for this product; however, very large releases of this product may be harmful or fatal to overexposed aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal: Waste disposal must be in accordance with federal, state, and local regulations.
13.2	Special Considerations: NA

14. TRANSPORTATION INFORMATION

The basic description (proper shipping name, hazard class & division, ID Number, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.

14.1	49 CFR (GND): NOT REGULATED	
14.2	IATA (AIR): AVIATION REGULATED LIQUID, N.O.S. (ETHYL CYANOACRYLATE), 9, UN3334 (500 ml max. per package)	
14.3	IMDG (OCN): NOT REGULATED	
14.4	TDGR (Canadian GND): NOT REGULATED	
14.5	ADR/RID (EU): NOT REGULATED	
14.6	MEXICO (SCT): NOT REGULATED	

15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements: NA	
15.2	SARA Threshold Planning Quantity: NA	
15.3	TSCA Inventory Status: The components of this product are listed on the TSCA Inventory.	
15.4	CERCLA Reportable Quantity (RQ): NA	
15.5	Other Federal Requirements: This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).	
15.6	Other Regulations: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDL. None of the components of this product are listed on the Priorities Substances List.	
15.7	State Regulatory Information: None of the ingredients in this mixture are listed on any state criteria lists.	
15.8	67/548/EEC (European Union) Requirements: The primary component of this product is not listed in Annex I of EU Directive 67/548/EEC: <u>Ethyl Cyanoacrylate</u>: Irritant (Xi). R: 36/37/38-43 - Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. S: 24/25-26-46 - Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If swallowed, seek medical advice immediately and show this MSDS or container label.	

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16. OTHER INFORMATION

16.1	Other Information: WARNING: Eye irritant. If eye contact occurs, flush immediately with water and GET MEDICAL ATTENTION. Bonds skin instantly. If skin bonds, DO NOT PULL; peel apart gently using acetone or CND Product Remover. Do not store near eye drops. KEEP OUT OF REACH OF CHILDREN. For Professional Use Only.
16.2	Terms & Definitions: See last page of this MSDS.
16.3	Disclaimer: This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's & OPI Products' knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.
16.4	Prepared for: OPI Products, Inc. 13034 Satcoy Street No. Hollywood, CA 91605 USA +1 (818) 759-2400 phone +1 (818) 759-5770 fax http://www.opi.com/ O·P·I
16.5	Prepared by: ShipMate, Inc. 18436 Hawthorne Boulevard, Suite 201 Torrance, CA 90504 +1 (310) 360-3700 phone +1 (310) 360-5700 fax http://www.shipmate.com/  ShipMate® <i>Dangerous Goods Training & Consulting</i>

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DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these that are commonly used include the following:

GENERAL INFORMATION:

CAS No.	Chemical Abstract Service Number
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EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists
TLV	Threshold Limit Value
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
IDLH	Immediately Dangerous to Life and Health

FIRST AID MEASURES:

CPR	Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body.
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HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

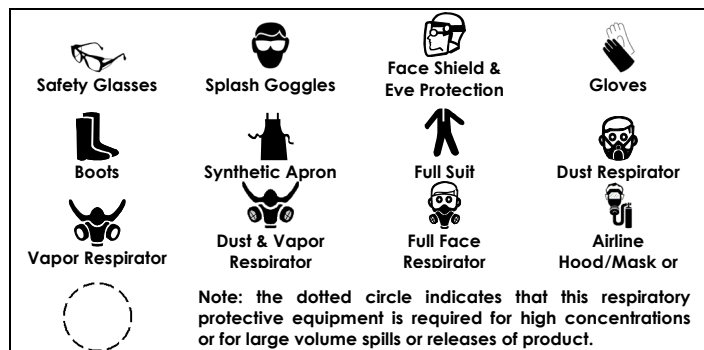
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard



PERSONAL PROTECTION RATINGS:

A		G	
B		H	
C		I	
D		J	
E		K	
F		X	Consult your supervisor or S.O.P. for special handling directions.



FLAMMABILITY LIMITS IN AIR:

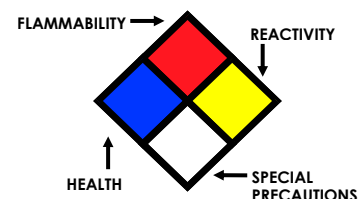
Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source

OTHER STANDARD ABBREVIATIONS:

NA	Not Available
NR	No Results
NE	Not Established
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA
HAZARD RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard
ACD	Acidic
ALK	Alkaline
COR	Corrosive
-W	Use No Water
OX	Oxidizer



TOXICOLOGICAL INFORMATION:

LD₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC₅₀	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD₀₁	Lowest dose to cause a symptom
TCLO	Lowest concentration to cause a symptom
TD₀₁, LD₀₁, & LD₀₁ or TC, TC₀₁, LC₀₁, & LC₀₁	Lowest dose (or concentration) to cause lethal or toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TL_m	Median threshold limit
log K_{ow} or log K_{oc}	Coefficient of Oil/Water Distribution

REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System
DOT	U.S. Department of Transportation
TC	Transport Canada
EPA	U.S. Environmental Protection Agency
DSL	Canadian Domestic Substance List
NDSL	Canadian Non-Domestic Substance List
PSL	Canadian Priority Substances List
TSCA	U.S. Toxic Substance Control Act
EU	European Union (European Union Directive 67/548/EEC)
CPR	Canada's Controlled Product Regulations

EC INFORMATION:

C	E	F	N	O	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

WHMIS INFORMATION:

A	B	C	D1	D2	D3	E	F
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive