



Revision Number: 001.1

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE 3D IND249 Black	IDH number:	2933628
Product type/use:	3D Printing Resin	Region:	United States
Restriction of Use:	None identified	Contact information:	
Company address:		Telephone:	+1 (860) 571-5100
Henkel Corporation		MEDICAL EMERGENCY Phone:	Poison Control Center
One Henkel Way			1-877-671-4608 (toll free) or 1-303-592-1711
Rocky Hill, Connecticut 06067		TRANSPORT EMERGENCY Phone:	CHEMTREC
			1-800-424-9300 (toll free) or 1-703-527-3887
		Internet:	www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
WARNING:	CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1



Precautionary Statements

Prevention:	Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection.
Response:	IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.
Storage:	Not prescribed
Disposal:	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate	72869-86-4	60 - 80
2-Hydroxyethyl methacrylate	868-77-9	10 - 30
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester	2351-43-1	0.1 - 1

Reaction mass of pentamethyl-4-piperidylsebacates	1065336-91-5	0.1 - 1
Glycerol, propoxylated, esters with acrylic acid 1-6.5PO	52408-84-1	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide. Do not use high volume water jet.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.
Unusual fire or explosion hazards:	Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers.
Hazardous combustion products:	Oxides of carbon. Oxides of nitrogen. Irritating organic vapours.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling:	Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed. Refer to Section 8.
Storage:	Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Protect from direct sunlight. Keep away from heat, spark and flame.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate	None	None	None	None
2-Hydroxyethyl methacrylate	None	None	None	None
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester	None	None	None	None
Reaction mass of pentamethyl-4-piperidylsebacates	None	None	None	None
Glycerol, propoxylated, esters with acrylic acid 1-6.5PO	None	None	None	None

Engineering controls:	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
Respiratory protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Eye/face protection:	Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.
Skin protection:	Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	liquid
Color:	black
Odor:	Acrylic
Odor threshold:	Not available.
pH:	Not applicable, Product is non-soluble (in water).
Vapor pressure:	< 1.3 kPa (20 °C (68°F))
Boiling point/range:	> 149 °C (> 300.2 °F)
Melting point/ range:	Not applicable, Product is a liquid
Specific gravity:	1.0 - 1.2
Vapor density:	Heavier than air, Not applicable
Flash point:	> 93.3 °C (> 199.94 °F) ASTM D 93-96 Flash point
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	The product is not flammable.
Evaporation rate:	Not available.
Solubility in water:	practically insoluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	Not available.
Viscosity:	350 - 550 mPa.s
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Irritating organic vapours.
Incompatible materials:	Free radical initiators. Inert gases. Oxygen scavengers. Acids and bases. Amines, strong alkalis Reactive metals. Peroxides. Iron. Rust. Moisture.
Reactivity:	Not available.
Conditions to avoid:	Extremes of temperature and direct sunlight. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials. UV light. Loss of dissolved air. Moisture.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation:	Inhalation of vapors or mists of the product may be irritating to the respiratory system. Breathing high vapor concentrations may produce anesthetic effects, nausea, dizziness, headache, weakness, peripheral drowsiness.
Skin contact:	Causes skin irritation. May cause allergic skin reaction.
Eye contact:	Causes serious eye irritation.
Ingestion:	May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate	None	No Data
2-Hydroxyethyl methacrylate	Oral LD50 (Rat) = 11.2 g/kg Oral LD50 (Rat) = 5,050 mg/kg	Irritant, Allergen
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester	None	Allergen, Irritant
Reaction mass of pentamethyl-4-piperidylsebacates	None	No Data
Glycerol, propoxylated, esters with acrylic acid 1-6.5PO	None	Allergen, Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate	No	No	No
2-Hydroxyethyl methacrylate	No	No	No
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester	No	No	No
Reaction mass of pentamethyl-4-piperidylsebacates	No	No	No
Glycerol, propoxylated, esters with acrylic acid 1-6.5PO	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any packaging.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Urethane dimethacrylate)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Urethane dimethacrylate)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
Marine pollutant: Urethane dimethacrylate

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
TSCA 12 (b) Export Notification: None above reporting de minimis
CERCLA/SARA Section 302 EHS: None above reporting de minimis.
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 313: None above reporting de minimis.
California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 3, 8, 9, 11

Prepared by: Product Safety and Regulatory Affairs

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