



Revision Number: 001.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Loctite 3D MED413 HDT60 Tough	IDH number:	2689915
	White		
Product type/use:	3D Printing	Item number:	
Restriction of Use:	None identified	Region:	Canada
Company address:	Contact information:		
Henkel Canada Corporation	Telephone: +1 (905) 814-6511		
Meadowpine Boulevard 2515	MEDICAL EMERGENCY Phone: Poison Control Center		
Mississauga, Ontario L5N 6C3	1-877-671-4608 (toll free) or 1-303-592-1711		
	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.
 SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.

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

PICTOGRAM(S)



Precautionary Statements

Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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, clothing, eye 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 exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.
Storage:	Store locked up.
Disposal:	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with Canadian Hazardous Products Regulations (WHMIS 2015) and is consistent with the provision of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

IDH number: 2689915

Product name: Loctite 3D MED413 HDT60 Tough White

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Weight %*
2-Hydroxyethyl methacrylate	868-77-9	30 - 60
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	72869-86-4	10 - 30
Isobornyl methacrylate	7534-94-3	5 - 10
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester	2351-43-1	1 - 5
Reaction mass of pentamethyl-4-piperidylsebacates	1065336-91-5	0.1 - 1
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	0.1 - 1
Mixture of less 3-(4-(2-Hydroxy-2-methylpropionyl)phenyl)-1,1,3-trimethylindan-6-yl 2-hydroxyprop-2-yl ketone and 3-(4-(2-Hydroxy-2-m	163702-01-0	0.1 - 1
Glycerol, propoxylated, esters with acrylic acid 1-6.5PO	52408-84-1	0.1 - 1
Titanium dioxide	13463-67-7	0.1 - 1
Trimethylolpropane triacrylate	15625-89-5	0.1 - 1
ethylene dimethacrylate	97-90-5	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:	If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Move to fresh air. If symptoms persist, seek medical advice.
Skin contact:	Rinse with running water and soap. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Discard any shoes or clothing items that cannot be decontaminated.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention immediately.
Ingestion:	Seek immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.
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 vapors.

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. See Section 8 of the SDS for Personal Protective Equipment.

Storage:

Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

Shelf Life Statement: Not available.

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
2-Hydroxyethyl methacrylate	None	None	None	None
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	None	None	None	None
Isobornyl 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
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	None	None	None	None
Mixture of less 3-(4-(2-Hydroxy-2-methylpropionyl)phenyl)-1,1,3-trimethylindan-6-yl 2-hydroxyprop-2-yl ketone and 3-(4-(2-Hydroxy-2-methylpropionyl)phenyl)-1,1,3-trimethylindan-6-yl 2-hydroxyprop-2-yl ketone	None	None	None	None
Glycerol, propoxylated, esters with acrylic acid 1-6.5PO	None	None	None	None
Titanium dioxide	10 mg/m3 TWA	15 mg/m3 PEL Total dust. 15 MPPCF TWA Respirable fraction. 15 mg/m3 TWA Total dust. 50 MPPCF TWA Total dust. 5 mg/m3 TWA Respirable fraction.	None	None
Trimethylolpropane triacrylate	None	None	1 mg/m3 TWA (SKIN)	None
ethylene dimethacrylate	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:	White
Odor:	Acrylate
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	Not available.
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	1.10
Vapor density:	Not available.
Flash point:	> 93.3 °C (> 199.94 °F)
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Not available.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	Not available.
Viscosity:	500 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:	Strong reducing agents. Free radical initiators. Inert gases. Oxygen scavengers. Strong oxidizing agents. Amines, strong alkalies Reactive metals. Iron. Rust. Peroxides. Strong acids and strong bases.
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.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:	Skin, Inhalation, Eyes, Ingestion
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Potential Health Effects/Symptoms

Inhalation: Inhalation of vapors or mists of the product may be irritating to the respiratory system.
Skin contact: Causes skin irritation. May cause allergic skin reaction.
Eye contact: Causes serious eye damage.
Ingestion: Not expected under normal conditions of use. May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
2-Hydroxyethyl methacrylate	Oral LD50 (Rat) = 11.2 g/kg Oral LD50 (Rat) = 5,050 mg/kg	Irritant, Allergen
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	None	No Data
Isobornyl methacrylate	None	Irritant, Allergen
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester	None	Allergen, Irritant
Reaction mass of pentamethyl-4-piperidylsebacates	None	No Data
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	None	No Records
Mixture of less 3-(4-(2-Hydroxy-2-methylpropionyl)phenyl)-1,1,3-trimethylindan-6-yl 2-hydroxyprop-2yl ketone and 3-(4-(2-Hydroxy-2-m	None	No Data
Glycerol, propoxylated, esters with acrylic acid 1-6.5PO	None	Allergen, Irritant
Titanium dioxide	Inhalation LC50 (Rat, 4 h) = > 6.82 mg/l Inhalation LC50 (Rat, 4 h) = > 2.28 mg/l Inhalation LC50 (Rat, 4 h) = > 3.56 mg/l	Irritant, Respiratory, Some evidence of carcinogenicity
Trimethylolpropane triacrylate	None	Irritant, Allergen
ethylene dimethacrylate	None	Allergen, Irritant, Kidney, Liver, Nervous System, Respiratory

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
2-Hydroxyethyl methacrylate	No	No	No
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	No	No	No
Isobornyl 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
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No	No	No
Mixture of less 3-(4-(2-Hydroxy-2-methylpropionyl)phenyl)-1,1,3-trimethylindan-6-yl 2-hydroxyprop-2yl ketone and 3-(4-(2-Hydroxy-2-m	No	No	No
Glycerol, propoxylated, esters with acrylic acid 1-6.5PO	No	No	No
Titanium dioxide	No	Group 2B	No
Trimethylolpropane triacrylate	No	Group 2B	No
ethylene dimethacrylate	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 package/configuration.

Canada Transportation of Dangerous Goods - Ground

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, Reaction mass of pentamethyl-4-piperidylsebacates)
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, Reaction mass of pentamethyl-4-piperidylsebacates)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
Marine pollutant:	Urethane dimethacrylate, Reaction mass of pentamethyl-4-piperidylsebacates

15. REGULATORY INFORMATION

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.

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.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: First issue.

Prepared by: Product Safety and Regulatory Affairs

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