Material Safety Data Sheet

Revision Number: 004.2

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: 3311 Light Cure Adhesive Medical Device Adhesive
Product type: Ultraviolet adhesive

IDH number: 146461
Item number: 19737
Region: United States

Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

Contact information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS:

Physical state:	Liquid	**HEALTH:**	*2
Color:	Pale yellow	**FLAMMABILITY:**	2
Odor:	Mild	**PHYSICAL HAZARD:**	1
		Personal Protection:	See MSDS Section 8

WARNING: COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF SWALLOWED, ABSORBED THROUGH SKIN OR INHALED.
DO NOT SPRAY. DO NOT HEAT.
MAY CAUSE ALLERGIC SKIN REACTION.
CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

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

Potential Health Effects

Inhalation: Modified acrylamide is harmful if inhaled. Causes respiratory tract irritation. Vapors and mists will irritate nose and throat and possibly eyes. Headache. Nausea. DO NOT heat or spray as this increases the inhalation hazard.

Skin contact: Modified acrylamide may be absorbed through skin in harmful amounts. Toxic. May cause allergic skin reaction. Causes skin irritation.

Eye contact: Contact with eyes will cause irritation.

Ingestion: Modified acrylamide is harmful if swallowed. Toxic.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Acrylate monomer	Proprietary	30 - 60
Urethane Polymer	Proprietary	30 - 60
Modified acrylamide	2680-03-7	10 - 30
Photoinitiator	24650-42-8	1 - 5
Substituted silane	Proprietary	1 - 5
Photoinitiator	Proprietary	1 - 5

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 wash skin thoroughly with soap and water. Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention. Wash clothing before reuse.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical attention.
Ingestion:	Do not induce vomiting. Never give anything by mouth to an unconscious person. Keep individual calm. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash point:	77.2 °C (170.96 °F) Pensky Martens closed cup
Autoignition temperature:	Not available
Flammable/Explosive limits - lower:	Not available
Flammable/Explosive limits - upper:	Not available
Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Water may be unsuitable as an extinguishing media, but may be helpful in keeping adjacent containers cool.
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. Oxides of phosphorus. Oxides of silicon. Formaldehyde. Hydrogen cyanide. Amines. Isocyanates. Toxic fumes. 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:	Remove all sources of ignition. Do not allow product to enter sewer or waterways.
Clean-up methods:	Ensure adequate ventilation. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). 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. Do not taste or swallow. DO NOT heat or spray. Use only in area provided with appropriate exhaust ventilation. Refer to Section 8.
Storage:	For safe storage, store at or below 26 °C (78.8 °F) Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Acrylate monomer	None	None	None	None
Urethane Polymer	None	None	None	None
Modified acrylamide	None	None	None	0.1 mg/m3 TWA (Skin) 0.025 ppm TWA (Skin)
Photoinitiator	None	None	None	None
Substituted silane	None	None	None	None
Photoinitiator	None	None	None	None

Engineering controls: Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s). If this material is handled at elevated temperatures or under mist forming conditions, without engineering controls, a NIOSH approved respirator must be used.

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.

Skin protection: Use impermeable gloves and protective clothing as necessary to prevent skin contact. Neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Color: Pale yellow
Odor: Mild
Odor threshold: Not available
pH: Not applicable
Vapor pressure: Not available
Boiling point/range: > 93 °C (> 199.4 °F)
Melting point/ range: Not available
Specific gravity: 1.1013
Vapor density: Not available
Flash point: 77.2 °C (170.96 °F) Pensky Martens closed cup
Flammable/Explosive limits - lower: Not available
Flammable/Explosive limits - upper: Not available
Autoignition temperature: Not available
Evaporation rate: Not available
Solubility in water: Slight
Partition coefficient (n-octanol/water): Not available
VOC content: 4.12 %; 45.37 g/l (process)
0.68 %; 7.49 g/l (potential)
4.8 %; 52.86 g/l (total)
(ASTM D5403)

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Hazardous reactions: May occur.

Hazardous decomposition products: Oxides of carbon. Oxides of nitrogen. Oxides of silicon. Oxides of phosphorus. Irritating organic vapours. Formaldehyde. Isocyanates. Hydrogen cyanide. Amines.

Incompatible materials: Strong oxidizing agents. Strong reducing agents. Strong acids and strong bases. Free radical initiators. Water. Humid air.

Conditions to avoid: Heat, flames, sparks and other sources of ignition. Avoid temperatures above 26°C (80°F). Store away from incompatible materials. Ultraviolet radiation. Direct sunlight. Freezing conditions.

11. TOXICOLOGICAL INFORMATION

Product toxicity data: Modified acrylamide: LD50 (oral, rat) 316 mg/kg LD50 (dermal, rabbit) 518 mg/kg LC50 (vapor, 1hour, rat) greater than 776 ppm.

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Acrylate monomer	No	No	No
Urethane Polymer	No	No	No
Modified acrylamide	No	No	No
Photoinitiator	No	No	No
Substituted silane	No	No	No
Photoinitiator	No	No	No

Hazardous components	Health Effects/Target Organs
Acrylate monomer	Irritant, Allergen
Urethane Polymer	No Records
Modified acrylamide	Irritant, Eyes, Mutagen, Kidney, Less weight gain and food intake.
Photoinitiator	No Target Organs
Substituted silane	Irritant, Allergen
Photoinitiator	No Records

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

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

Proper shipping name: Combustible liquid, n.o.s. (N,N-Dimethylacrylamide)
Hazard class or division: Combustible Liquid
Identification number: NA 1993
Packing group: III

International Air Transportation (ICAO/IATA)

Proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (2,2-Dimethoxy-1,2-diphenylethan-1-one, Isobornyl acrylate)
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. (2,2-Dimethoxy-1,2-diphenylethan-1-one, Isobornyl acrylate)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
Marine pollutant:	2,2-Dimethoxy-1,2-diphenylethan-1-one, Isobornyl acrylate

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12(b) Export Notification:	None above reporting de minimus
CERCLA/SARA Section 302 EHS:	None above reporting de minimus
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health, Fire
CERCLA/SARA 313:	None above reporting de minimus
California Proposition 65:	No California Proposition 65 listed chemicals are known to be present.

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.
WHMIS hazard class:	B.3, D.1.B, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

Prepared by: Tricia Voghell, Regulatory Affairs Specialist

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