



Revision Number: 004.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: 3201 Light Cure Adhesive Medical Device Adhesive
Product type: Ultraviolet adhesive
Company address: Henkel Corporation, 1001 Trout Brook Crossing, Rocky Hill, Connecticut 06067
IDH number: 135297
Item number: 19728
Region: United States
Contact information: Telephone: 860.571.5100, Emergency telephone: 860.571.5100, Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

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

WARNING: CAUSES EYE IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
MAY BE HARMFUL IF SWALLOWED.
MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation: May cause respiratory tract irritation.
Skin contact: May cause skin irritation. May cause allergic skin reaction.
Eye contact: Contact with eyes will cause irritation.
Ingestion: May be harmful if swallowed.

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

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	%
Urethane Polymer	Proprietary	30 - 60
Isobornyl acrylate	5888-33-5	30 - 60
2-Hydroxyethyl methacrylate	868-77-9	10 - 30
Photoinitiator	24650-42-8	1 - 5
Substituted silane	Proprietary	1 - 5
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	75980-60-8	1 - 5
2-Hydroxyethyl acrylate	818-61-1	0.1 - 1

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
Skin contact:	Wash with soap and water. Remove contaminated clothing and footwear. Wash clothing before reuse. If symptoms develop and persist, get medical attention.
Eye contact:	Flush with copious amounts of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. Get medical attention.
Ingestion:	Do not induce vomiting. Keep individual calm. Never give anything by mouth to an unconscious person. Get medical attention.

5. FIRE FIGHTING MEASURES

Flash point:	> 93.3 °C (> 199.94 °F) Tagliabue closed cup
Autoignition temperature:	Not available
Flammable/Explosive limits - lower:	Not available
Flammable/Explosive limits - upper:	Not available
Extinguishing media:	Foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
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 sulfur. Oxides of phosphorus. 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:	Spontaneous hazardous polymerization may occur. Ventilate area. 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.

7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. Keep container closed. Use only in area provided with appropriate exhaust ventilation. Do not taste or swallow. Wash thoroughly after handling. Keep away from heat, spark and flame.
Storage:	For safe storage, store between 10 °C (50°F) and 32 °C (89.6 °F) Store away from heat, sparks, flames, or other sources of ignition.

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
Urethane Polymer	None	None	None	None
Isobornyl acrylate	None	None	None	None
2-Hydroxyethyl methacrylate	None	None	None	3 ppm Ceiling
Photoinitiator	None	None	None	None
Substituted silane	None	None	None	None
Silica, amorphous, fumed, crystal-free	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction. 6 mg/m3 TWA	20 MPPCF TWA 0.8 mg/m3 TWA	None	None
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	None	None	None	None
2-Hydroxyethyl acrylate	None	None	None	None

Engineering controls:

Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established 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.

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:	< 5 mm hg (20 °C (68°F))
Boiling point/range:	> 93 °C (> 199.4 °F)
Melting point/ range:	Not available
Specific gravity:	1.09
Vapor density:	> 1
Flash point:	> 93.3 °C (> 199.94 °F) Tagliabue 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:	1.09 %; 11.88 g/l (process) 0.85 %; 9.27 g/l (potential) 1.94 %; 21.15 g/l (total) (ASTM D5403)

10. STABILITY AND REACTIVITY

Stability:	Unstable.
Hazardous reactions:	May occur.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Oxides of phosphorus. Irritating organic vapours. Dimethylamine.
Incompatible materials:	Strong oxidizing agents. Strong acids. Strong bases.
Conditions to avoid:	Keep away from heat, ignition sources and incompatible materials. See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10).

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Urethane Polymer	No	No	No
Isobornyl acrylate	No	No	No
2-Hydroxyethyl methacrylate	No	No	No
Photoinitiator	No	No	No
Substituted silane	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	No	No	No
2-Hydroxyethyl acrylate	No	No	No

Hazardous components	Health Effects/Target Organs
Urethane Polymer	No Records
Isobornyl acrylate	Irritant, Allergen
2-Hydroxyethyl methacrylate	Irritant, Allergen
Photoinitiator	No Target Organs
Substituted silane	Irritant, Allergen
Silica, amorphous, fumed, crystal-free	Nuisance dust
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	No Records
2-Hydroxyethyl acrylate	Allergen, Central nervous system, Heart, Irritant, Kidney, Liver, Lung, Some evidence of carcinogenicity, Spleen

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

The shipping classifications in this sections are for non-bulk packaging only (unless otherwise specified). Shipping classification may be different for bulk 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: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/IMDG)

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

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
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: D.2.B

16. OTHER INFORMATION

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

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