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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Impruv(R) Optically Clear UV Adhesive 349
Product type: Ultraviolet adhesive
Company address:
Henkel Loctite Corporation
1001 Trout Brook Crossing
Rocky Hill, Connecticut 06067

Item number: 34931
Region: United States
Contact Information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.loctite.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous components</u>	<u>%</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER</u>
Polyurethane methacrylate resin	30-60	None	None	None
High boiling methacrylate	10-30	None	None	None
Hydroxyalkyl methacrylate 868-77-9	10-30	None	None	3 ppm (ceiling)
Alkyl methacrylate	5-10	None	None	50 ppm
Acrylic acid 79-10-7	1-5	2 ppm TWA (skin)	None	1 ppm TWA (skin); 3 ppm STEL (skin)
Substituted silane	1-5	None	None	None
Tetradecyl methacrylate 2549-53-3	1-5	None	None	50 ppm TWA; 75 ppm STEL

3. HAZARDS IDENTIFICATION

<u>EMERGENCY OVERVIEW</u>		
Physical state: Liquid	HEALTH:	2*
Color: Clear	FLAMMABILITY:	1
Odor: Sharp, Irritating	PHYSICAL HAZARD:	1
	Personal Protection:	See Section 8
DANGER: MAY CAUSE ALLERGIC SKIN REACTION. CAUSES EYE AND SKIN IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION. MAY BE HARMFUL IF SWALLOWED.		

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation: May cause irritation to nose and throat.

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Skin contact: Irritating to skin. May cause allergic skin reaction.
Eye contact: Vapors may irritate eyes. Contact with eyes will cause irritation.
Ingestion: May be harmful if swallowed. May cause gastrointestinal tract irritation if swallowed.

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

See Section 11 for additional toxicological information.

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If symptoms develop and persist, get medical attention.

Skin contact: Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.

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. Obtain medical attention.

5. FIRE-FIGHTING MEASURES

Flash point: Greater than 93°C (200°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 fire fighting procedures: None

Unusual fire or explosion hazards: None

Hazardous combustion products: Oxides of carbon. Irritating organic vapors.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: Prevent product from entering drains or open waters.

Clean-up methods: Ensure adequate ventilation. Soak up with inert absorbent. Store in a partly filled, closed container until disposal.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Do not breathe mist or vapors.

Storage: For safe storage, store at or below 38°C (100°F).

Incompatible products: Refer to Section 10.

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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Engineering controls: Use local exhaust ventilation to maintain airborne concentrations below established exposure limits.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

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

Eye/face protection: Safety goggles or safety glasses with side shields.

See Section 2 for exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Color: Clear
Odor: Sharp, Irritating
Vapor pressure: Less than 10 mm Hg at 27°C (80°F)
pH: Not applicable
Boiling point/range: Greater than 149°C (300°F)
Melting point/range: Not available
Specific gravity: 1.02
Vapor density: Not available
Evaporation rate: Not available
Solubility in water: Slight
Partition coefficient (n-octanol/water): Not available
VOC content: 54.5%; 556 grams/liter (EPA Method 24)

10. STABILITY AND REACTIVITY

Stability: Stable.

Hazardous polymerization: Will not occur.

Hazardous decomposition products: Oxides of carbon. Irritating organic vapors.

Incompatibility: Strong oxidizers.

Conditions to avoid: See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10).

11. TOXICOLOGICAL INFORMATION

Product toxicity data: Acute LD50 (oral): 5000 (rat). (estimated). Acute dermal LD50 greater than 2000 mg/kg (rabbit) (estimated).

Carcinogen Status

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Polyurethane methacrylate resin	No	No	No
High boiling methacrylate	No	No	No
Hydroxyalkyl methacrylate	No	No	No
Alkyl methacrylate	No	No	No
Acrylic acid	No	No	No
Substituted silane	No	No	No
Tetradecyl methacrylate	No	No	No

Literature Referenced Target Organ & Other Health Effects

Hazardous components	Health Effects/Target Organs
Polyurethane methacrylate resin	Allergen, Irritant
High boiling methacrylate	Allergen, Irritant
Hydroxyalkyl methacrylate	Allergen, Irritant
Alkyl methacrylate	Allergen, Irritant
Acrylic acid	Allergen, Corrosive, Irritant, Kidney, Liver
Substituted silane	Allergen, Irritant
Tetradecyl methacrylate	Allergen, Irritant

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.

EPA hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

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

Proper shipping name: Unrestricted
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA):

Proper shipping name: Unrestricted
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/IMDG):

Proper shipping name: Unrestricted
Hazard class or division: None
Identification number: None
Packing group: None
Marine pollutant: 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.

CERCLA/SARA Section 302 EHS: None above reporting de minimus.
CERCLA/SARA Section 311/312: Immediate Health Hazard, Delayed Health Hazard
CERCLA/SARA 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Acrylic acid (CAS# 79-10-7).

California Proposition 65: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. 1,4-Dioxane (CAS# 123-91-1). Acetaldehyde (CAS# 75-07-0). Toluene-2,4-diisocyanate (CAS# 584-84-9). Toluene-2,6-diisocyanate (CAS#91-08-7). Ethylene oxide (CAS# 75-21-8).

Canada Regulatory Information

CEPA DSL/NDL Status: One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List. Those components must be tracked by all Canadian Importers of Record as required by the Canadian Environmental Protection Agency. They may be imported into Canada in limited quantities. Please contact Loctite Health & Regulatory Affairs Department for details.

WHMIS hazard class: D.2.A, 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.

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