



Revision Date: 10/20/2006

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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

Item No. : 34931
Region: United States
Contact Information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.loctite.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	%	ACGIH TLV	OSHA PEL	OTHER
Polyurethane methacrylate resin PROPRIETARY	30-60	None	None	None
High boiling methacrylate 7534-94-3	10-30	None	None	None
Hydroxyalkyl methacrylate 27813-02-1	10-30	None	None	1 ppm TWA; 3 ppm STEL
Alkyl C12 methacrylate 142-90-5	5-10	None	None	50 ppm
Acrylic acid 79-10-7	1-5	2 ppm TWA (skin)	10 ppm TWA; 30 mg/m ³	1 ppm TWA (skin); 3 ppm STEL (skin)
Photoinitiator 947-19-3	1-5	None	None	None
gamma-Glycidioxypropyl trimethoxysilane 2530-83-8	1-5	None	None	None
Tetradecyl methacrylate 2549-53-3	1-5	None	None	50 ppm TWA; 75 ppm STEL

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW****HMIS:**

Physical state: Liquid
Color: Clear
Odor: Sharp, Irritating

HEALTH: 2*
FLAMMABILITY: 1
PHYSICAL HAZARD: 1
Personal Protection: See Section 8

WARNING: 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

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Inhalation:	May cause irritation to nose and throat.
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. Acrylic acid: Respiratory disorders. Lung disease.
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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:	Dry powder. Foam. Carbon dioxide.
Special fire fighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Unusual fire or explosion hazards:	None
Hazardous combustion products:	Trace amounts of toxic fumes may be released on incineration and the use of breathing apparatus is recommended.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:	Ventilate area.
Clean-up methods:	Soak up with inert absorbent. Contain the spill in a closed container until disposal.

7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapor and mist. Wash thoroughly after handling. Use only with adequate ventilation.
Storage:	For safe storage, store at or below 38°C (100°F). Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.
Incompatible products:	Refer to Section 10.

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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:	ASTM D5403 Process volatiles 1.19 %, 11.3590 grams/liter; Potential volatiles 0.63 %, 6.0136 grams/liter; Total volatiles 1.82 %, 17.3727 grams/liter.

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).
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Carcinogen Status

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Polyurethane methacrylate resin PROPRIETARY	No	No	No
High boiling methacrylate 7534-94-3	No	No	No
Hydroxyalkyl methacrylate 27813-02-1	No	No	No
Alkyl C12 methacrylate 142-90-5	No	No	No
Acrylic acid 79-10-7	No	No	No
Photoinitiator 947-19-3	No	No	No
gamma-Glycidoxypropyl trimethoxysilane 2530-83-8	No	No	No
Tetradecyl methacrylate 2549-53-3	No	No	No

Literature Referenced Target Organ & Other Health Effects

Hazardous components	Health Effects/Target Organs
Polyurethane methacrylate resin PROPRIETARY	Allergen, Irritant
High boiling methacrylate 7534-94-3	Allergen, Irritant
Hydroxyalkyl methacrylate 27813-02-1	Allergen, Irritant
Alkyl C12 methacrylate 142-90-5	Allergen, Irritant
Acrylic acid 79-10-7	Allergen, Corrosive, Irritant, Kidney, Liver
Photoinitiator 947-19-3	No data
gamma-Glycidoxypropyl trimethoxysilane 2530-83-8	Allergen, Irritant
Tetradecyl methacrylate 2549-53-3	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: 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

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WaterTransportation (IMO/IMDG):

Proper shipping name:	Not regulated
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:	4-Methoxyphenol (150-76-5).

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.
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Canada Regulatory Information

CEPA DSL/NDL Status:	All components are listed on or are exempt from listing on the Domestic Substances List.
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: 15

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