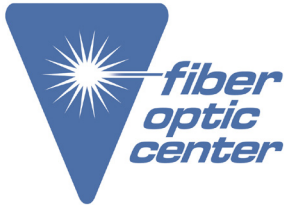


SAFETY DATA SHEET (SDS)

**Manufacturer:**

Dymax®

Product Name:

Dymax OP-81-LS Hybrid UV & Heat Cure Adhesive (3ml)

Manufacturer Part Number:

OP-81-LS-3ML

▶ [Click here for more details on the Dymax OP-81-LS Hybrid UV & Heat Cure Adhesive \(3ml\)](#)

**SAFETY DATA SHEET**

This safety data sheet was created pursuant to the requirements of: HazCom 2012

OP-81-LS

Issuing Date 09-Apr-2024

Revision date 09-Apr-2024

Revision Number 32.02

1. IdentificationProduct identifier**Product Name** OP-81-LSOther means of identificationRecommended use of the chemical and restrictions on use**Recommended use** Adhesives and/or sealants.**Restrictions on use** Consumer use.Details of the supplier of the safety data sheet**Manufacturer**Dymax Corporation
318 Industrial Lane
Torrington, CT 06790
Tel: 860-482-1010
Fax: 860-496-0608**E-mail address** Product_Regulatory@dymax.comEmergency telephone number**24 Hour Emergency Phone Number** Chemtrec 1-800-424-9300**2. Hazard(s) identification****Emergency Overview****Appearance** opaque to translucent gel **Physical state** Liquid **Odor** CharacteristicClassification

Skin sensitization Category 1

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements**Signal word** Warning**Hazard statements**

May cause an allergic skin reaction.

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**Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray.

Precautionary Statements - Response

Get medical advice/attention if you feel unwell.
IF ON SKIN: Wash with plenty of soap and water.
Take off contaminated clothing and wash before reuse.

Precautionary Statements - Storage

Store in a closed container.
Keep at temperatures between 1°C and 5 °C

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Other information

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Trade secret	Weight-%
Fused Silica (Amorphous)	60676-86-0	*	30 - 60
Cycloaliphatic Epoxide Resin	Proprietary	*	10 - 30
Epoxy resin	Proprietary	*	1 - 5
Glycidyl Ether	Proprietary	*	0.1 - 1
Photoinitiator	Proprietary	*	0.1 - 1

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures**General advice**

Show this safety data sheet to the doctor in attendance.

Ingestion**Contact the professionals at Fiber Optic Center for a quote or to get more details.**23 Centre Street • New Bedford, MA 02740 USA • focenter.com508-992-6464 | (800) 473-4237 • sales@focenter.com

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Get medical attention.

Inhalation

Remove to fresh air. If symptoms persist, call a physician.

Skin contact

Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Self-protection of the first aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.

Indication of any immediate medical attention and special treatment needed**Note to physicians**

May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical or CO2.

Unsuitable extinguishing media

Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Product is or contains a sensitizer. May cause sensitization by skin contact.

Hazardous combustion products

Carbon dioxide (CO2). Carbon monoxide. Hydrocarbons. Nitrogen oxides (NOx).

Explosion data

Sensitivity to mechanical impact: None.

Sensitivity to static discharge: None.

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures**Personal precautions**

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other information

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Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: Handling and storage, including how the chemical may be safely used

Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice, Protect from light, Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place, Protect from light.
Keep at temperatures between 1°C and 5 °C.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Fused Silica (Amorphous)	-	TWA: 20 mppcf respirable dust TWA: respirable dust (80)/(% SiO ₂) mg/m ³ (vacated) TWA: 0.1 mg/m ³ respirable dust : (80)/(% SiO ₂) mg/m ³ TWA TWA: 20 mppcf	-
Photoinitiator	TWA: 0.5 mg/m ³ Sb	TWA: 0.5 mg/m ³ Sb (vacated) TWA: 0.5 mg/m ³ Sb	IDLH: 50 mg/m ³ Sb TWA: 0.5 mg/m ³ Sb

Appropriate engineering controls

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

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General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Avoid contact with skin, eyes or clothing. Wash hands before breaks and after work. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended.

Hand protection

Wear suitable gloves. Nitrile rubber, Butyl rubber.

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear suitable protective clothing.

Respiratory protection**Environmental exposure controls**

Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid
Appearance: opaque to translucent gel
Color: off-white to light black
Odor: Characteristic
Odor threshold: No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	> 101 °C / 213.8 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	385 °C / 725 °F	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	30,000 - 45,000 cP	

Other information

Explosive properties: No information available

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Oxidizing properties: No information available
Softening point: No information available
Molecular weight: No information available
Liquid Density: No information available
Bulk density: No information available

10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

None under normal processing.

Conditions to avoid

Protect from light. Heat, flames and sparks.

Incompatible materials

Amines. Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products

None under normal use conditions.

11. Toxicological information

Information on likely routes of exposure**Product Information****Inhalation:**

Specific test data for the substance or mixture is not available.

Eye contact:

Specific test data for the substance or mixture is not available.

Skin contact:

May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes mild skin irritation.

Ingestion:

Specific test data for the substance or mixture is not available.

Acute toxicity**The following values are calculated based on chapter 3.1 of the GHS document:**

ATEmix (oral): 13,312.30 mg/kg
ATEmix (dermal): 32,172.50 mg/kg
ATEmix (inhalation-dust/mist): 71.40 mg/l

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ATEmix (inhalation-vapor): 99,999.00 mg/l

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

Component Information:

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Cycloaliphatic Epoxide Resin	= 5000 mg/kg (Rat)	= 23600 mg/kg (Rabbit)	-
Epoxy resin	= 1134 mg/kg (Rat)	> 2150 mg/kg (Rat)	-
Glycidyl Ether	= 17100 mg/kg (Rat)	> 3987 mg/kg (Rabbit)	-
Photoinitiator	> 2000 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation:

Classification based on data available for ingredients. May cause skin irritation.

Serious eye damage/eye irritation:

Not classified. Based on available data, the classification criteria are not met.

Respiratory or skin sensitization:

May cause sensitization by skin contact.

Germ cell mutagenicity:

Not classified. Based on available data, the classification criteria are not met.

Carcinogenicity:

Based on available data, the classification criteria are not met.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Fused Silica (Amorphous)	-	Group 3	-	-

Legend:

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity:

Not classified. Based on available data, the classification criteria are not met.

STOT - single exposure:

Not classified. Based on available data, the classification criteria are not met.

STOT - repeated exposure:

Not classified. Based on available data, the classification criteria are not met.

Aspiration hazard:

Not classified. Based on available data, the classification criteria are not met.

12. Ecological information

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Ecotoxicity

Unknown aquatic toxicity
0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Cycloaliphatic Epoxide Resin	-	LC50: =24mg/L (96h, Oncorhynchus mykiss)	-

Persistence and degradability
No information available.

Bioaccumulation

Chemical name	Partition coefficient
Cycloaliphatic Epoxide Resin	1.34
Epoxy resin	-0.269
Glycidyl Ether	3.77

Other adverse effects
No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products
Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of contents/containers in accordance with local regulations.

14. Transport information

IMDG Not regulated
IATA Not regulated
DOT Not regulated

15. Regulatory information

International Inventories

Commercial Activity Designation - Active
TSCA Complies
AIIIC Not Listed

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DSL/NDSL	Not Listed
EINECS/ELINCS	Complies
ENCS	Not Listed
IECSC	Complies
KECL	Complies
PICCS	Not Listed
NZIoC	Not Listed
TCSI	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
AIICS - Australian Industrial Chemicals Introduction Scheme
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
TCSI - Taiwan Chemical Substance Inventory

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Photoinitiator	1.0

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Photoinitiator	-	X	-	-

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Fused Silica (Amorphous) 30 - 60 %	X	X	-
Thermal initiator	X	-	X

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0.1 - 1 % Photoinitiator 0.1 - 1 %	X	-	X
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U.S. EPA Label Information**EPA Pesticide Registration Number**
Not applicable**16. Other information**

NFPA	Health hazards 2	Flammability 1	Instability 0	Special hazards -
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA (time-weighted average)	STEL (Short Term Exposure Limit)
Ceiling: Maximum limit value	*: Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 09-Apr-2024**Revision Note** The symbol (*) in the margin of this SDS indicates that this line has been revised**Disclaimer**

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Dymax Corporation and its subsidiaries and affiliates (DYMAX). The information in this SDS relates only to the specific material designated herein. DYMAX assumes no legal responsibility for use of or reliance upon the information in this SDS.

End of Safety Data Sheet

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