

Manufacturer:

Dymax®

Product Name:

Dymax OP-4-20632-GEL Optical Adhesive, Translucent gel, UV Cure plus Heat Exposure - 3ml Syringe

Manufacturer Part Number:

OP-4-20632-GEL-3ML

Click here for more details on the Dymax OP-4-20632-GEL Optical Adhesive, Translucent gel, UV Cure plus Heat Exposure - 3ml Syringe



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SAFETY DATA SHEET

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

OP-4-20632-GEL

Issuing Date 10-Nov-2021 Revision date 10-Nov-2021 Revision Number 30

1. Identification

Product identifier

Product Name OP-4-20632-GEL

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended use Adhesive

Restrictions on use No information available.

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

Emergency telephone number

24 Hour Emergency Phone Number Chemtrec 1-800-424-9300

2. Hazard(s) identification

	Emergency Overview	
Appearance translucent	Physical state Liquid	Odor Characteristic

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1A

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements

Signal word Danger

Hazard statements
Causes skin irritation.

Causes serious eye damage.

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May cause an allergic skin reaction.



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray.

Precautionary Statements - Response

Get medical advice/attention if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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.

Precautionary Statements - Disposal

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

Other information

1E-05 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

Environmental product testing for acute and chronic aquatic effects determined classification to be Category 3. OECD Test No. 202: Daphnia sp., Acute Immobilization Test.

3. Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

Chemical name	CAS No	Trade secret	Weight-%
Epoxy Acrylate	Proprietary	*	40-69
Methacrylate Ester Monomer	Proprietary	*	10-24
Epoxy Resin	Proprietary	*	5-9
Acrylic Acid	79-10-7	*	3-<5
Silane Coupling Agent	Proprietary	*	<1
Silane Coupling Agent	Proprietary	*	<1
Photoinitator	Proprietary	*	<1

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

4. First-aid measures

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Description of first aid measures

General advice

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Inhalation

Remove to fresh air. Get medical attention immediately if symptoms occur.

Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.

Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

Self-protection of the first aider

Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed Burning sensation. Itching. Rashes. Hives.

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: 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

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Personal precautions

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

Other information

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. Ensure adequate ventilation. Protect from light.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Protect from light.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Acrylic Acid	TWA: 2 ppm S*	(vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m³	TWA: 2 ppm TWA: 6 mg/m³
		(vacated) S*	

Appropriate engineering controls

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this

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product.

Hand protection

Wear suitable gloves. Nitrile rubber, Butyl rubber.

Eye/face protection

Tight sealing safety goggles

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

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: translucent
Color: colorless
Odor: Characteristic

Odor threshold: No information available

 Property
 Values
 Remarks • Method

 pH:
 No data available
 No information available

 pH (as aqueous solution):
 No data available
 Not applicable

 Melting point / freezing point:
 No data available
 No information available

 Boiling point / boiling range:
 No data available
 No information available

Flash point: 101 °C / 214 °F Pensky-Martens Closed Cup (PMCC)
Evaporation rate: No data available No information available

Evaporation rate: No data available No information available Information available Not applicable Flammability Limit in Air

Upper flammability or explosive No data available No information available limits:

Lower flammability or explosive No data available No information available limits:

Vapor pressure: No data available No information available Relative vapor density: No data available No information available Relative density: No data available No information available partially soluble No data available Water solubility: No information available Solubility(ies): No information available Partition coefficient: No data available No information available Autoignition temperature: 438 °C / 820.4 No information available No data available No information available Decomposition temperature: No information available

Kinematic viscosity: No data available

Dynamic viscosity: 50,000 cP

Other information

Explosive properties: No information available Oxidizing properties: No information available Softening point: No information available Molecular weight: No information available VOC Content (%): No information available

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Liquid Density: No information available Bulk density:

10. Stability and reactivity

<u>Chemical stability</u> Stable under normal conditions.

Possibility of hazardous reactions

Hazardous polymerization

Conditions to avoid

Protect from light. Heat, flames and sparks.

Incompatible materials

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

Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact:

Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to

eyes. Skin contact:

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

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

Acute toxicity

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

ATEmix (oral): ATEmix (dermal): 6,705.10 mg/kg 10,008.30 mg/kg ATEmix (inhalation-dust/mist): 56.10 mg/l

Unknown acute toxicity

1E-05 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

Component Information:

	Inhalation LC50
Methacrylate Ester Monomer = 5050 mg/kg (Rat) > 3000 mg/kg (Rabbit)	-

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Epoxy Resin	= 11400 mg/kg (Rat)	-	-
Acrylic Acid	= 193 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 11.1 mg/L (Rat)1 h = 3.6 mg/L (Rat)4 h
Silane Coupling Agent	= 7.01 g/kg (Rat)	= 3.97 mL/kg (Rabbit)	> 5.3 mg/L (Rat) 4 h
Silane Coupling Agent	= 23.5 g/kg (Rat)	> 2000 mg/kg(Rat)	> 2.28 mg/L (Rat) 6 h
Photoinitator	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

Symptoms related to the physical, chemical and toxicological characteristics

Redness, Burning, May cause blindness, Itching, Rashes, Hives, May cause redness and tearing of the eyes.

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. Irritating to skin.

Serious eye damage/eye irritation: Classification based on data available for ingredients. Causes burns. Risk of serious

damage to eyes.

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.

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

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

Chemical name	ACGIH	IARC	NTP	OSHA
Acrylic Acid	-	Group 3	-	-

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. Not classified. Based on available data, the classification criteria are not met. STOT - single exposure: STOT - repeated exposure: Not classified. Based on available data, the classification criteria are not met.

Target organ effects: Respiratory system. Eyes. Skin.

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

12. Ecological information

EcotoxicityHarmful to aquatic life with long lasting effects.

Product Information

Environmental product testing for acute and chronic aquatic effects determined classification to be Category 3. OECD Test No. 202: Daphnia sp., Acute Immobilization Test.

Chemical name	Algae/aquatic	Fish	Toxicity to microorganisms	Crustacea
Methacrylate Ester Monomer		LC50: 213 - 242mg/L (96h, Pimephales promelas)		EC50 > 380 mg/l 48 h (Daphnia magna)

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		LC50: =227mg/L (96h, Pimephales promelas)		
Acrylic Acid	EC50: =0.04mg/L (72h, Desmodesmus subspicatus) EC50: =0.17mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =222mg/L (96h, Brachydanio rerio) NOEC: >= 10.1mg/L (45d, Oryzias latipes, OECD 210)	-	EC50: =95mg/L (48h, Daphnia magna) NOEC: =3.8mg/L (21d, Daphnia magna)
Silane Coupling Agent	-	LC50: =55mg/L (96h, Cyprinus carpio)	-	-
Silane Coupling Agent	EC50 > 536,00 mg/l 72 h (Scenedesmus subspicatus)	LC50: >100mg/L (96h Danio rerio)	-	EC50 > 876,00 mg/l 48 h (Daphnia magna)
Photoinitator	-	LC50: >90µg/L (96h, Danio rerio)	-	-

Persistence and degradability

No information available.

Bioaccumulation

There is no data for this product.

Component Information

Chemical name	Partition coefficient
Methacrylate Ester Monomer	0.47
Acrylic Acid	0.46
Silane Coupling Agent	2.1
Photoinitator	5.8

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.

US EPA Waste Number:

14. Transport information

IMDG Not regulated Not regulated <u>IATA</u> DOT Not regulated

15. Regulatory information

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International Inventories

TSCA Complies

Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

Complies DSL/NDSL Complies EINECS/ELINCS Complies **ENCS** Complies IECSC KECL Complies Complies **PICCS** Complies NZIoC Complies TCSI Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
AIICS - Australian Industrial Chemicals IntroductionScheme

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

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 %
Acrylic Acid	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 does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

	Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
1	Acrylic Acid	5000 lb	-	RQ 5000 lb final RQ
				RQ 2270 kg final RQ

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Acrylic Acid	X	X	X

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1,4-Benzened	ol	Х	Х	Х	

U.S. EPA Label Information

EPA Pesticide Registration Number

Not applicable

16. Other information

NFPA Flammability 1 Instability 0 Health hazards 3 Special hazards HMIS Health hazards 3 Flammability 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

10-Nov-2021 Revision date

Revision Note

The symbol (*) in the margin of this SDS indicates that this line has been revised

Disclaimer
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End of Safety Data Sheet

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