

Manufacturer:

Dymax

Product Name:

Dymax OP-21 Plastic Bonding Adhesive, Optically Clear, UV Cure - 30ml Syringe

Manufacturer Part Number:

OP-21-30ML

Click here for more details on the Dymax OP-21 Plastic Bonding Adhesive, Optically Clear, UV Cure - 30ml Syringe



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: 29 CFR 1910.1200

OP-21

Issuing Date 17-Oct-2025 Revision date 17-Oct-2025 Revision Number 32

1. Identification

Product identifier

Product Name OP-21

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended use Adhesives and/or sealants.

Consumer use. Restrictions on 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.com

Emergency telephone number

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

Emergency Telephone 01-800-681-9531 (Latin American Spanish)

2. Hazard(s) identification

Classification

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements

Signal word Danger

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FOC last update 12/12/2025.



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Hazard statements

Harmful if swallowed Causes skin irritation Causes serious eye damage. May cause an allergic skin reaction. May damage fertility or the unborn child. May cause respiratory irritation







Precautionary Statements - Prevention

Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection.

Wash face, hands and any exposed skin thoroughly after handling.

Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

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.

Take off contaminated clothing and wash before reuse. IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Precautionary Statements - Storage

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

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.

Testing for acute and chronic aquatic effects determined no environmental classification is required. OECD Test No. 202: Daphnia sp., Acute Immobilization Test.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

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Chemical name	CAS No.	Trade secret	Weight-%
Isobornyl Acrylate	5888-33-5	*	15 - 40
N,N-Dimethylacrylamide	2680-03-7	*	10 - 30
Photoinitator	Proprietary	*	1 - 5
Photoinitiator	Proprietary	*	0.5 - 1.5
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	75980-60-8	*	0.1 - 1
2-Hydroxyethyl methacrylate	868-77-9	*	0.1 - 1
Epoxy Resin	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. Immediate medical attention is required.

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician.

Remove to fresh air. Get medical attention immediately if symptoms occur. IF exposed or concerned: Get medical advice/attention.

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 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

<u>Suitable Extinguishing Media</u>
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.

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Hazardous combustion products
Carbon dioxide (CO2). Carbon monoxide. Hydrocarbons. Nitrogen oxides (NOx).

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

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 Avoid contact with skin, eyes or clothing Do not eat, drink or smoke when using this product Ensure adequate ventilation In case of insufficient ventilation, wear suitable respiratory equipment Take off contaminated clothing and wash before reuse Remove contaminated clothing and shoes

Avoid breathing vapors or mists

Protect from light.

Conditions for safe storage, including any incompatibilities

Storage Conditions

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Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Protect from light

8. Exposure controls/personal protection

Control Parameters

Exposure Limits

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

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 product. Wash hands before breaks and immediately after handling the product.

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. Long sleeved clothing.

Respiratory protection

Use appropriate 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 translucent Appearance: colorless to yellow Odor: Characteristic No information available Odor threshold:

Property Values No data available Remarks • Method Melting point / freezing point No data available None known Boiling point / boiling range No data available None known

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None known

None known

None known

None known

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101 °C / 213.8 °F Flash point Pensky-Martens Closed Cup (PMCC)

No data available Evaporation rate None known Flammability (solid, gas) No data available None known None known

Flammability Limit in Air Upper flammability or explosive No data available

Lower flammability or explosive No data available limits

Vapor pressure No data available No data available Relative vapor density Relative density No data available Water solubility Insoluble in water Solubility(ies) No data available Partition coefficient No data available Autoignition temperature 470 °C / 878 °F Decomposition temperature Kinematic viscosity

None known None known No data available None known 450 cP

Dynamic viscosity Other information

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

10. Stability and reactivity

Reactivity
No information available.

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

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization None under normal processing

<u>Conditions to avoid</u>
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

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Product Information

Inhalation:

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

Eve contact:

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

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. Causes skin irritation.

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

Acute toxicity

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

1,307.10 mg/kg ATEmix (oral): ATEmix (dermal): 2,791.70 mg/kg 99,999.00 mg/l 99,999.00 mg/l ATEmix (inhalation-dust/mist): ATEmix (inhalation-vapor):

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
Isobornyl Acrylate	= 4890 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	
N,N-Dimethylacrylamide	= 316 mg/kg (Rat)	907mg/kg (Rabbit)	> 776 ppm (Rat)1 h
Photoinitator	-	> 5000 mg/kg (Rat)	> 1000 mg/m ³ (Rat) 4 h
Photoinitiator	= 1694 mg/kg (Rat)	= 6929 mg/kg (Rat)	
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
2-Hydroxyethyl methacrylate	= 5050 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
Epoxy Resin	= 11400 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. Causes skin irritation.

Serious eye damage/eye irritation:

Classification based on data available for ingredients. Causes burns. Causes serious eye damage.

Respiratory or skin sensitization:

May cause an allergic skin reaction.

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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.

Reproductive toxicity:

Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

STOT - single exposure:

May cause respiratory irritation.

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

Product Information

Testing for acute and chronic aquatic effects determined no environmental classification is required. OECD Test No. 202: Daphnia sp., Acute Immobilization Test.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Isobornyl Acrylate	ErC 50 = 2.7 mg/L 96h	LC50: =0.704mg/L 96h	EC 50 = 1.1 mg/L 48 h
	(Pseudokirchneriella subcapitata)	(Danio rerio)	(Daphnia magna)
N,N-Dimethylacrylamide	-	LC50: >100mg/L 96h	EC50 > 120 mg/l 48 h
		(Oncorhynchus mykiss)	(Daphnia magna)
Photoinitator	-	LC50: =24mg/L (96h, Danio rerio)	-
Diphenyl (2,4,6-trimethylbenzoyl) phosphine	-	LC50 10 mg/l 48 h	•
oxide		(Oryzias latipes)	
2-Hydroxyethyl methacrylate	- /	LC50: 213 - 242mg/L (96h,	EC50 > 380 mg/l 48 h (Daphnia
		Pimephales promelas)	magna)
		LC50: =227mg/L (96h,	
		Pimephales promelas)	

Persistence and degradability

No information available

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Isobornyl Acrylate	4.52
N,N-Dimethylacrylamide	-0.3
Photoinitator	2.81
Photoinitiator	1.62
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	3.1
2-Hydroxyethyl methacrylate	0.42

Other adverse effects

No information available.

13. Disposal considerations

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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

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

15. Regulatory information

International Inventories

Commercial Activity Designation - Active

TSCA Complies

Low Volume Exemption (LVE) DSL/NDSL Listed on NDSL

EINECS/ELINCS Complies **ENCS** Complies **IECSC** Record Notification KECI Complies **PICCS** Complies **NZIoC** Complies TCSI Complies

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 Chemicals Inventory
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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

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Learn More



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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).

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
Stabilizer	X	X	X
<0.1 %			

U.S. EPA Label Information

EPA Pesticide Registration Number

Not applicable

16. Other information

NFPA Health hazards 3 Flammability 1 Instability 0 Special hazards - HMIS Health hazards 3 Flammability 1 Physical hazards 0 Personal protection X Chronic Hazard Star Legend: *= Chronic Health Hazard

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

U.S. Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA)

U.S. 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)

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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)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)

International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set United Nations World Health Organization (WHO)

Revision date 17-Oct-2025

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



