

SAFETY DATA SHEET (SDS)

**Manufacturer:**

Dymax®

Product Name:

Dymax OP-20 Optical Adhesive, Optically Clear, UV Cure - 30ml Syringe

Manufacturer Part Number:

OP-20-30ML

▶ Click here for more details on the Dymax OP-20 Optical Adhesive, Optically Clear, UV Cure - 30ml Syringe

**SAFETY DATA SHEET**

This safety data sheet was created pursuant to the requirements of: Canadian WHMIS 2015

OP-20

Issuing Date 04-Apr-2023

Revision date 04-Apr-2023

Revision Number 2

1. IdentificationProduct identifier**Product Name** OP-20Other means of identification**Synonyms** NoneRecommended 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**Emergency Telephone** Chemtrec @ 001-703-741-5970 (24hrs)**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 1B
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

Label elements**Signal word** Danger**Hazard statements**Harmful if swallowed.
Causes skin irritation.

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Causes serious eye damage.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.

**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood.
Wear protective gloves, protective clothing, eye protection and face protection.
Wash face, hands and any exposed skin thoroughly after handling.
Do not breathe dust, fume, gas, mist, vapors and spray.

Precautionary Statements - Response

Get medical advice/attention if you feel unwell.

Eyes

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

Skin

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

Ingestion

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

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

Other information**Unknown acute toxicity**

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

Chemical name	CAS No	Weight-%	Hazardous Material Information Review	Date HMIRA filed and date exemption
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			Act registry number (HMIRA registry #)	granted (if applicable)
N,N-Dimethylacrylamide	2680-03-7	10-24	-	-
Acrylic Ester	Proprietary	10-24	-	-
Vinyl Caprolactam	Proprietary	10-24	-	-
Visible Photoinitiator	Proprietary	<1	-	-

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.

Ingestion

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

Inhalation

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

Skin contact

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.

Eye contact

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**Symptoms**

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

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

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

Explosion data**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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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. 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**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls**Engineering controls****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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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.

Duration of contact	PPE - Glove material	Glove thickness [mm]	Break through time [minutes]
Short term	Wear protective nitrile rubber gloves	> 0.1	10 - 20
Long term (repeated)	Wear protective butyl rubber gloves	0.5	> 480

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.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	transparent
Color:	light yellow
Odor:	Characteristic
Odor threshold:	No information available

Property	Values	Remarks • Method
pH:	No data available	No information available
Melting point / freezing point:	No data available	No information available
Boiling point / boiling range:	No data available	No information available
Flash point:	101 °C / 213.8 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate:	No data available	No information available
Flammability (solid, gas):	No data available	Not applicable
Flammability Limit in Air		
Upper flammability or explosive limits:	No data available	No information available
Lower flammability or explosive limits:	No data available	No information available
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
Water solubility:	partially soluble	No information available
Solubility in other solvents:	No data available	No information available
Partition coefficient:	No data available	No information available
Autoignition temperature:	270 °C / 518 °F	No information available
Decomposition temperature:	No data available	No information available

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Kinematic viscosity:

No data available

No information available

Dynamic viscosity:

1,000 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

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

Heat, flames and sparks. Protect from light.

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****Inhalation:**

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.

Ingestion:

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

Acute toxicity

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

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ATEmix (oral): 932.60 mg/kg
ATEmix (dermal): 2,589.80 mg/kg

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
N,N-Dimethylacrylamide	= 316 mg/kg (Rat)	907mg/kg (Rabbit)	> 776 ppm (Rat) 1 h
Acrylic Ester	= 4890 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
Vinyl Caprolactam	-	= 1700 mg/kg (Rabbit)	> 1.6 mg/L (Rat) 8h
Visible Photoinitiator	-	> 2000 mg/kg (Rat)	-

Symptoms related to the physical, chemical and toxicological characteristics**Symptoms**

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

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. Suspected of damaging fertility or the unborn child.

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

STOT - repeated exposure: Causes damage to organs through prolonged or repeated exposure.

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

12. Ecological information

Ecotoxicity**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	Toxicity to microorganisms	Crustacea
N,N-Dimethylacrylamide	-	LC50: >100mg/L 96h (Oncorhynchus mykiss)	-	EC50 > 120 mg/l 48 h (Daphnia magna)
Acrylic Ester	ErC 50 = 2.7 mg/L 96h (Pseudokirchneriella)	LC50: =0.704mg/L 96h (Danio rerio)	-	EC 50 = 1.1 mg/L 48 h (Daphnia magna)

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	subcapitata)			
Vinyl Caprolactam	EC50 > 100 mg/L (72h, Desmodesmus subspicatus)	LC50: ≈307mg/L (96h, Danio rerio)	-	EC50 > 100 mg/L (48h, Daphnia magna)
Visible Photoinitiator	-	LC50 10 mg/l 48 h (Oryzias latipes)	-	-

Persistence and degradability
No information available.

Bioaccumulation
There is no data for this product.

Component Information

Chemical name	Partition coefficient
N,N-Dimethylacrylamide	-0.3
Acrylic Ester	4.52
Vinyl Caprolactam	1.2
Visible Photoinitiator	3.1

Other adverse effects
No information available.

13. Disposal considerations

Waste treatment methods**Waste from residues/unused products**

Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

Contaminated packaging

Do not reuse empty containers.

14. Transport information

IMDG Not regulated**IATA** Not regulated**DOT** Not regulated**TDG** Not regulated

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture**International Regulations**

The Montreal Protocol on Substances that Deplete the Ozone Layer
Not applicable.

The Stockholm Convention on Persistent Organic Pollutants
Not applicable.

The Rotterdam Convention

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Not applicable.

International Inventories

TSCA	Complies
DSL/NDL	Listed on NDSL
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Record Notification
KECL	Complies
PICCS	Not Listed
NZIoC	Not Listed
TCSI	Complies
AIC	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - 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
AICS - Australian Industrial Chemicals Introduction Scheme

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

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) (AEL(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

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Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 04-Apr-2023

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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