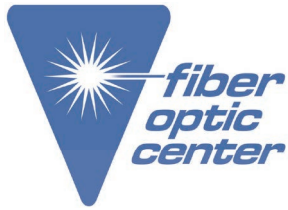


SAFETY DATA SHEET (SDS)

**Manufacturer:**

Dymax

Product Name:

Dymax OP-61-LS Low Shrinkage Optical Adhesive, White Opaque, UV Cure - 30ml Syringe

Manufacturer Part Number:

OP-61-LS-30ML

[Click here for more details on the Dymax OP-61-LS Low Shrinkage Optical Adhesive, White Opaque, UV Cure - 30ml Syringe](#)

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1272/2008 and Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878

OP-61-LS

Issuing Date 28-Apr-2023

Revision date 28-Apr-2023

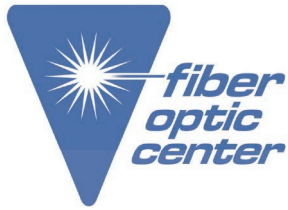
Revision Number 32

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Product Name** OP-61-LS**Pure substance/mixture** Mixture**1.2. Relevant identified uses of the substance or mixture and uses advised against****Recommended use** Adhesives and/or sealants.**Uses advised against** Consumer use.**1.3. 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**Manufacturing sites**
Dymax Asia Pacific Pte Ltd.
Block 5008 (East Wing)
Ang Mo Kio Ave. 5
#05-3 TECHplace II
Singapore 569874
Tel: +65-6752-2887
Fax: +65-6752-2813**Supplier**
Dymax Asia Pacific Pte Ltd.
Block 5008 (East Wing)
Ang Mo Kio Ave. 5
#05-3 TECHplace II
Singapore 569874
Tel: +65-6752-2887
Fax: +65-6752-2813**For further information, please contact****E-mail address** Product_Regulatory_Europe@dymax.com**1.4. Emergency telephone number****Emergency Telephone** Chemtrec @ 001-703-741-5970 (24hrs)

Austria +(43)-13649237	Belgium +(32)-28083237	Bulgaria +(359)-32570104
Croatia +(385)-17776920	Czech Republic +(420)-228880039	Denmark +(45)-69918573
Estonia +(372)-6681294	Finland +(358)-942419014	France +(33)-975181407
Germany 0800-181-7059	Greece +(30)-2111768478	Hungary +(36)-18088425
Ireland +(353)-19014670	Italy 800-789-767	Latvia +(371)-66165504
Lithuania +(370)-52140238	Luxembourg +(352)-20202416	Netherlands +(31)-85880596
Norway +(47)-21930678	Poland +(48)-223988029	Portugal +(351)-308801773
Romania +(40)-37-6300026	Slovakia +(423)-233057972	Slovenia +(386)-18888016
Spain 900-868538	Sweden +(46)-852503403	United Kingdom +(44)-870-8200418
Israel +(972)-37630639	Russia 8-800-100-6346	Saudi Arabia +(966)-8111095861
Switzerland +(41)-435082011	Turkey +(90)-212-7055340	Ukraine +(380)-947101374

SECTION 2: Hazards identification**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

SAFETY DATA SHEET (SDS)

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OP-61-LS - OP-61-LS

Revision date 28-Apr-2023

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1A - (H317)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Category 3 - Respiratory irritation	

2.2. Label elements**Signal word** - Warning

Contains Acrylic Acid, Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-, Isobornyl Acrylate, 2-Hydroxyethyl methacrylate

Hazard statements

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

EUH208 - Contains 2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate, 3-Methacryloxypropyltrimethoxysilane May produce an allergic reaction.

Precautionary Statements - EU (§28, 1272/2008)

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

2.3. Other hazards

No information available.

Product Information

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

PBT and vPvB assessment

The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

Endocrine Disruptor Information

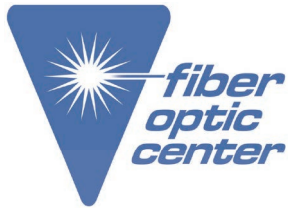
This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures**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

SAFETY DATA SHEET (SDS)



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OP-61-LS - OP-61-LS

Revision date 28-Apr-2023

Chemical name	CAS No	EC No (EU Index No)	REACH registration number	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Isobornyl Acrylate	5888-33-5	(607-756-00-6) 227-561-6	01-2119957862-25-0011	10-24	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
2-Hydroxyethyl methacrylate	868-77-9	(607-124-00-X) 212-782-2	01-2119490169-29-0022	5-9	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)
Acrylic Acid	79-10-7	(607-061-00-8) 201-177-9	-	1-<3	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1A (H314) Aquatic Acute 1 (H400) Flam. Liq. 3 (H226)
Benzene, (1-methylethenyl)-, homopolymer, ar-(2-hydroxy-2-methyl-1-oxopropyl) derivs.	163702-01-0	402-990-3	-	<1	Repr. 2 (H361f)
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate	15625-89-5	(607-111-00-9) 239-701-3	01-2119489896-11-XXXX	<1	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)
3-Methacryloxypropyltrimethoxysilane	2530-85-0	219-785-8	-	<1	Skin Sens. 1 (H317)
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	162881-26-7	(015-189-00-5) 423-340-5	-	<1	Skin Sens. 1A (H317) Aquatic Chronic 4 (H413)

Chemical name	CAS No	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Acrylic Acid	79-10-7	STOT SE 3 :: C>=1%		
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate	15625-89-5		1	

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

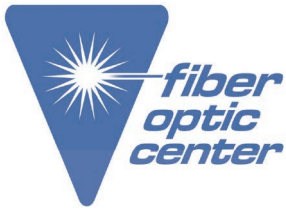
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Manufacturer Part Number:

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OP-61-LS - OP-61-LS

Revision date 28-Apr-2023

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Isobornyl Acrylate	4890	3000			
2-Hydroxyethyl methacrylate	5050	3000			
Acrylic Acid	193	2000	3.6 2.775		
Benzene, (1-methylethenyl)-, homopolymer, ar-(2-hydroxy-2-methyl-1-oxopropyl) derivs.		2000			
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl] diacrylate; 2,2-bis(acryloyloxymethyl) butyl acrylate; trimethylolpropane triacrylate	5190	5000			
3-Methacryloxypropyltrimethoxysilane	23500	2000			
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	2000	2000			

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

Inhalation

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

Eye contact

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. Get medical attention if irritation develops and persists.

Skin contact

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

Ingestion

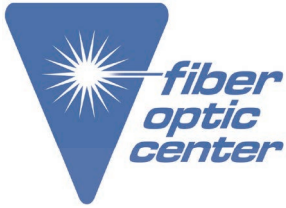
Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider

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

4.2. Most important symptoms and effects, both acute and delayed**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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OP-61-LS - OP-61-LS

Revision date 28-Apr-2023

Symptoms Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Product is or contains a sensitizer. May cause sensitization by skin contact.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. 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 Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

6.3. 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 Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

Contact the professionals at Fiber Optic Center for a quote or to get more details.

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OP-61-LS - OP-61-LS

Revision date 28-Apr-2023

7.1. 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. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Protect from light.

General hygiene considerations

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

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

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

Storage class (TRGS 510)

Storage class 10.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Acrylic Acid 79-10-7	STEL: 59 mg/m ³ STEL: 20 ppm TWA: 29 mg/m ³ TWA: 10 ppm	TWA: 10 ppm TWA: 29 mg/m ³ STEL 20 ppm STEL 59 mg/m ³	TWA: 2 ppm TWA: 6.0 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³	STEL: 59 mg/m ³ STEL: 20 ppm TWA: 29 mg/m ³ TWA: 10 ppm	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Acrylic Acid 79-10-7	STEL: 59 mg/m ³ STEL: 20 ppm TWA: 29 mg/m ³ TWA: 10 ppm	TWA: 30 mg/m ³ Ceiling: 60 mg/m ³	TWA: 2 ppm TWA: 5.9 mg/m ³ H* STEL: 20 ppm 1 minute STEL: 59 mg/m ³ 1 minute	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³	TWA: 2 ppm TWA: 6 mg/m ³ Ceiling: 15 ppm Ceiling: 45 mg/m ³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Isobornyl Acrylate 5888-33-5	-	-	skin sensitizer	-	-
2-Hydroxyethyl methacrylate 868-77-9	-	-	skin sensitizer	-	-
Acrylic Acid 79-10-7	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³	TWA: 10 ppm TWA: 30 mg/m ³	TWA: 10 ppm TWA: 30 mg/m ³ Peak: 10 ppm Peak: 30 mg/m ³	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³	TWA: 29 mg/m ³ STEL: 59 mg/m ³
2-ethyl-2-[(1-oxoallyl)oxy]methyl-1,3-propanediyl	-	-	skin sensitizer	-	-

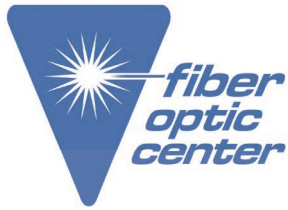
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OP-61-LS - OP-61-LS

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diacrylate; 2,2-bis(acryloyloxyethyl) butyl acrylate; trimethylolpropane triacrylate 15625-89-5					
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
2-Hydroxyethyl methacrylate 868-77-9	-	-	-	-	Sensitizer TWA: 20 mg/m ³
Acrylic Acid 79-10-7	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³	TWA: 29 ppm TWA: 10 mg/m ³ STEL: 59 ppm STEL: 20 mg/m ³ pelle*	TWA: 2 ppm TWA: 6 mg/m ³ *	TWA: 5 mg/m ³ TWA: 1.7 ppm STEL: 59 mg/m ³ STEL: 20 ppm	TWA: 10 ppm TWA: 29 mg/m ³ Ceiling: 59 mg/m ³ Ceiling: 20 ppm
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
2-Hydroxyethyl methacrylate 868-77-9	-	-	-	TWA: 2 ppm TWA: 11 mg/m ³ STEL: 4 ppm STEL: 16.5 mg/m ³	-
Acrylic Acid 79-10-7	STEL: 59 mg/m ³ STEL: 20 ppm TWA: 29 mg/m ³ TWA: 10 ppm	STEL: 20 ppm STEL: 59 mg/m ³ TWA: 10 ppm TWA: 29 mg/m ³	TWA: 29 mg/m ³ STEL: 59 mg/m ³	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³	STEL: 29.5 mg/m ³ TWA: 10 mg/m ³ *
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Acrylic Acid 79-10-7	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 59 mg/m ³ STEL: 20 ppm P*	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³	TWA: 10 ppm TWA: 29 mg/m ³ Ceiling: 59 mg/m ³	TWA: 29 mg/m ³ TWA: 10 ppm STEL: 20 ppm STEL: 59 mg/m ³ *	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³ via dérmica*
Chemical name	Sweden	Switzerland	United Kingdom		
Acrylic Acid 79-10-7	NGV: 10 ppm NGV: 29 mg/m ³ Bindande KGV: 20 ppm Bindande KGV: 59 mg/m ³	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³		

Biological occupational exposure limits

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

Derived No Effect Level (DNEL) - Workers

No information available

Derived No Effect Level (DNEL) - General Public

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Engineering controls

No information available.

Personal protective equipment

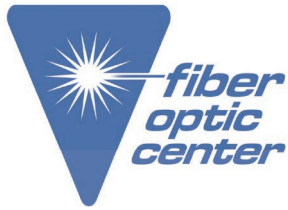
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OP-61-LS - OP-61-LS

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Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear suitable gloves. Nitrile rubber, Butyl rubber.
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.
General hygiene considerations	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.
Environmental exposure controls	No information available.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	Liquid
Appearance	opaque
Color	off-white white to
Odor	Characteristic.
Odor threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Boiling point / boiling range	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	
Flash point	101 °C	Pensky-Martens Closed Cup (PMCC)
Autoignition temperature	438 °C	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	60,000 cP	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
Not applicable

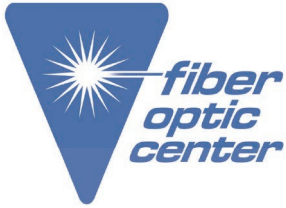
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OP-61-LS - OP-61-LS

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9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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 irritation. (based on components). May cause redness, itching, and pain.
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 skin irritation.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Acute toxicity

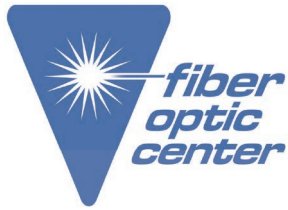
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SAFETY DATA SHEET (SDS)



Manufacturer:

Dymax

Product Name:

Dymax OP-61-LS Low Shrinkage Optical Adhesive, White Opaque, UV Cure - 30ml Syringe

Manufacturer Part Number:

OP-61-LS-30ML

Click here for more details on the Dymax OP-61-LS Low Shrinkage Optical Adhesive, White Opaque, UV Cure - 30ml Syringe

OP-61-LS - OP-61-LS

Revision date 28-Apr-2023

Numerical measures of toxicity

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

ATEmix (oral) 13,320.10 mg/kg
ATEmix (dermal) 15,901.50 mg/kg
ATEmix (inhalation-dust/mist) 168.20 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Isobornyl Acrylate	= 4890 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
2-Hydroxyethyl methacrylate	= 5050 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
Acrylic Acid	= 193 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 11.1 mg/L (Rat) 1 h = 3.6 mg/L (Rat) 4 h
Benzene, (1-methylethenyl)-, homopolymer, ar-(2-hydroxy-2-methyl- 1-oxopropyl) derivs.	-	= 2000 mg/kg (Rat)	-
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacylate	= 5190 mg/kg (Rat)	= 5000 mg/kg (Rabbit)	-
3-Methacryloxypropyltrimethoxy silane	= 23.5 g/kg (Rat)	> 2000 mg/kg (Rat)	> 2.28 mg/L (Rat) 6 h
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

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. May cause skin irritation.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes serious eye irritation.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.

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

Chemical name	European Union
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacylate	Carc. 2

Reproductive toxicity No information available.

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STOT - single exposure May cause respiratory irritation.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties
Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Isobornyl Acrylate	ErC 50 = 2.7 mg/L 96h (Pseudokirchneriella subcapitata)	LC50: =0.704mg/L 96h (Danio rerio)	-	EC 50 = 1.1 mg/L 48 h (Daphnia magna)
2-Hydroxyethyl methacrylate	-	LC50: 213 - 242mg/L (96h, Pimephales promelas) LC50: =227mg/L (96h, Pimephales promelas)	-	EC50 > 380 mg/l 48 h (Daphnia magna)
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)
3-Methacryloxypropyltrimethoxysilane	EC50 > 536.00 mg/l 72 h (Scenedesmus subspicatus)	LC50: >100mg/L (96h Danio rerio)	-	EC50 > 876.00 mg/l 48 h (Daphnia magna)
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	-	LC50: >90µg/L (96h, Danio rerio)	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Isobornyl Acrylate	4.52
2-Hydroxyethyl methacrylate	0.42
Acrylic Acid	0.46

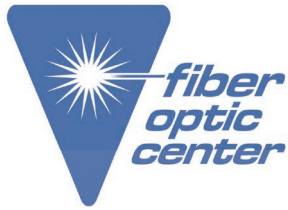
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Benzene, (1-methylethenyl)-, homopolymer, ar-(2-hydroxy-2-methyl-1-oxopropyl) derivs.	4.53
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate	0.67
3-Methacryloxypropyltrimethoxysilane	2.1
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	5.8

12.4. Mobility in soil**Mobility in soil**

No information available.

12.5. Results of PBT and vPvB assessment**PBT and vPvB assessment**

The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

Chemical name	PBT and vPvB assessment
Isobornyl Acrylate	The substance is not PBT / vPvB
2-Hydroxyethyl methacrylate	The substance is not PBT / vPvB
Acrylic Acid	The substance is not PBT / vPvB
Benzene, (1-methylethenyl)-, homopolymer, ar-(2-hydroxy-2-methyl-1-oxopropyl) derivs.	The substance is not PBT / vPvB
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate	The substance is not PBT / vPvB
3-Methacryloxypropyltrimethoxysilane	The substance is not PBT / vPvB
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties**Endocrine disrupting properties**

No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. 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.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

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IMDG

14.1 UN number or ID number	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	None
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	None
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	None
Special Provisions	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****France****Occupational Illnesses (R-463-3, France)**

Chemical name	French RG number
2-Hydroxyethyl methacrylate - 868-77-9	RG 65

Germany

Water hazard class (WGK) obviously hazardous to water (WGK 2) Classification according to AwSV.

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
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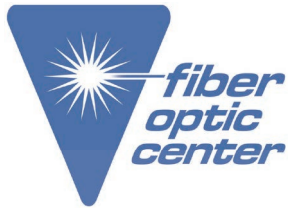
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2-Hydroxyethyl methacrylate - 868-77-9	75.	-
Acrylic Acid - 79-10-7	75.	-
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl] diacrylate; 2,2-bis(acryloyloxyethyl)butyl acrylate; trimethylolpropane triacrylate - 15625-89-5	75.	-
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)- - 162881-26-7	75.	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Simplified Notification
KECL	Complies
PICCS	Not Listed
AIIC	Not Listed
NZIoC	Not Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
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
AIICS - Australian Industrial Chemicals Introduction Scheme
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment**Chemical Safety Report**

No information available

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H226 - Flammable liquid and vapor
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H314 - Causes severe skin burns and eye damage
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation

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H361f - Suspected of damaging fertility
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H413 - May cause long lasting harmful effects to aquatic life

Legend

SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	On basis of test data
Chronic aquatic toxicity	On basis of test data
Aspiration hazard	Calculation method
Ozone	Calculation method

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)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
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)
National Institute of Technology and Evaluation (NITE)
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

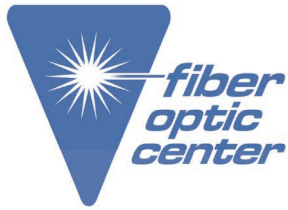
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OP-61-LS - OP-61-LS

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World Health Organization

Revision date

28-Apr-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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