

Manufacturer:

Dymax

Product Name:

Dymax OP-21G Plastic Bonding Adhesive, Optically Clear, Higher Viscosity version of OP-21, UV Cure - 3ml Syringe

Manufacturer Part Number:

OP-21G-3ML

Click here for more details on the Dymax OP-21G Plastic Bonding Adhesive, Optically Clear, Higher Viscosity version of OP-21, UV Cure - 3ml 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-21G

Revision date 06-Jul-2023 **Revision date** 06-Jul-2023 **Revision Number** 33

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier Product Name

oduct Name OP-21G

Unique Formula Identifier (UFI) 3C91-2075-P009-R626

Pure substance/mixture Mixture

 $\underline{\text{1.2. Relevant identified uses of the substance or mixture and uses advised against}}$

Recommended use Adhesives and/or sealants.

Uses advised against Consumer use.

1.3. Details of the supplier of the safety data sheet

 Manufacturer
 Manufacturing sites

 Dymax Corporation
 Dymax Asia Pacific Pte Ltd.

 318 Industrial Lane
 Block 5008 (East Wing)

 Torrington, CT 06790
 Ang Mo Kio Ave. 5

 Tel: 860-482-1010
 #05-3 TECHplace II

 Fax: 860-496-0608
 Singapore 569874

#05-3 TECHplace II #05-3 TECHplace II Singapore 569874 Singapore 569874 Tel: +65-6752-2887 Fax: +65-6752-2813 Fax: +65-6752-2813

Supplier Dymax Asia Pacific Pte Ltd.

Block 5008 (East Wing)

Ang Mo Kio Ave. 5

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)-858880596
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

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitization	Category 1 - (H317)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Category 3 - Respiratory irritation	

2.2. Label elements



Signal word - Danger

Contains Isobornyl Acrylate, N,N-Dimethylacrylamide, 1-Propanone, 2-hydroxy-2-methyl-1-phenyl-

Hazard statements

H302 - Harmful if swallowed

H315 - Causes skin irritation H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage H335 - May cause respiratory irritation

EUH208 - Contains 2-Hydroxyethyl methacrylate, Bisphenol-A epoxy resin May produce an allergic reaction.

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

P264 - Wash face, hands and any exposed skin thoroughly after handling
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

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

Additional information

This product requires tactile warnings if supplied to the general public.

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.

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Endocrine Disruptor Information

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

01 : 1	040	LEGN /EIII I	DEAGLE :	M	01 15 11 11 1
Chemical name	CAS		REACH registration	vveignt-%	Classification according to
		No)	number	477	Regulation (EC) No.
					1272/2008 [CLP]
Isobornyl Acrylate	5888-33-5	(607-756-00-6)	01-2119957862-25	25-39	Skin Irrit. 2 (H315)
		227-561-6	-0011		Eye Irrit. 2 (H319)
					Skin Sens. 1 (H317)
					STOT SE 3 (H335)
					Aquatic Acute 1 (H400)
					Aquatic Chronic 1 (H410)
N,N-Dimethylacrylamide	2680-03-7	220-237-5	01-2119971262-39	10-24	Acute Tox. 3 (H301)
11,11 Dimetryladi ylannad	2000 00 1	220 201 0	-0007	10 24	Acute Tox. 3 (H311)
			-0007		Eye Dam. 1 (H318)
4.5	7.470.00.5	004.070.0		4 .0	
1-Propanone,	7473-98-5	231-272-0	-	1-<3	Acute Tox. 4 (H302)
2-hydroxy-2-methyl-1-phenyl-					Aquatic Chronic 3 (H412)
Diphenyl	75980-60-8	(015-203-00-X)	-	<1	Repr. 2 (H361f)
(2,4,6-trimethylbenzoyl)		278-355-8			
phosphine oxide					
2-Hydroxyethyl methacrylate	868-77-9	(607-124-00-X)	01-2119490169-29	<1	Skin Irrit. 2 (H315)
,,,		212-782-2	-0022	A	Eve Irrit. 2 (H319)
					Skin Sens. 1 (H317)
Bisphenol-A epoxy resin	25068-38-6	(603-074-00-8)		<1	Skin Irrit. 2 (H315)
Biophichia / Copoxy Toolii	20000 00 0	(555 574 66 6)			Eye Irrit. 2 (H319)
					Skin Sens. 1 (H317)
					Aquatic Chronic 2 (H411)

Chemical name	CAS	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Bisphenol-A epoxy resin	25068-38-6	Eye Irrit. 2 :: C>=5%		
		Skin Irrit. 2 :: C>=5%		

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

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Isobornyl Acrylate	4890	3000		
N,N-Dimethylacrylamide	316			
1-Propanone,	1694	6929		
2-hydroxy-2-methyl-1-phen				

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Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
yl-				
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide		2000		
2-Hydroxyethyl methacrylate	5050	3000		
Bisphenol-A epoxy resin	11400			

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

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article

Chemical name	CAS	SVHC candidates
Diphenyl (2,4,6-trimethylbenzoyl)	75980-60-8	X
phosphine oxide		

SECTION 4: First aid measures

4.1. Description of first aid measures

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

required.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur. IF exposed or

concerned: Get medical advice/attention.

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.

Skin contactWash 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.

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

Symptoms Burning sensation. Itching. Rashes. Hives.

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

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

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

chemical

5.3. Advice for firefighters

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

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. Use personal protective equipment as required.

Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from

and upwind of spill/leak.

Refer to protective measures listed in Sections 7 and 8. Other information 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

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. 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. Avoid breathing vapors or mists. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

Protect from light.

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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.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach

of children. Store locked up. 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
Bisphenol-A epoxy resin 25068-38-6	-	-		TWA: 1.0 mg/m ³	- -/
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Isobornyl Acrylate 5888-33-5	=	7 - (skin sensitizer		
2-Hydroxyethyl methacrylate 868-77-9	-	-	skin sensitizer	-	•
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
2-Hydroxyethyl methacrylate 868-77-9	-			· // ′	Sensitizer TWA: 20 mg/m ³
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	

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.

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Predicted No Effect Concentration (PNEC)

No information available

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves. Nitrile rubber, Butyl rubber.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

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

None known

None known

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do General hygiene considerations

not eat, drink or smoke when using this product.

No information available **Environmental exposure controls**

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties Physical state Liquid

Appearance translucent Color colorless Odor Characteristic. Odor threshold No information available

Property Remarks • Method **Values** Melting point / freezing point Boiling point / boiling range No data available None known No data available None known Flammability (solid, gas) No data available None known Flammability Limit in Air None known

No data available Upper flammability or explosive

Lower flammability or explosive No data available

limits °C Pensky-Martens Closed Cup (PMCC) Flash point

Autoignition temperature **Decomposition temperature**

Bulk density

No data available None known None known pH (as aqueous solution) No data available Kinematic viscosity No data available None known Dynamic viscosity Water solubility 25.000 cP None known 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

No data available

470 °C

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Liquid Density
Relative vapor density
Particle characteristics
Particle Size

No data available No data available

None known

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

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 damage.

May cause irreversible damage to eyes.

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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).

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.

Acute toxicity

Numerical measures of toxicity

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

 ATEmix (oral)
 1,468.30 mg/kg

 ATEmix (dermal)
 3,624.80 mg/kg

 ATEmix (inhalation-gas)
 99,999.00 ppm

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

 ATEmix (inhalation-dust/mist)
 99,999.00 mg/l

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
1-Propanone, 2-hydroxy-2-methyl-1-phenyl-	= 1694 mg/kg (Rat)	= 6929 mg/kg (Rat)	
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	·	> 2000 mg/kg (Rat)	
2-Hydroxyethyl methacrylate	= 5050 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	
Bisphenol-A epoxy resin	= 11400 mg/kg (Rat)		

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

Skin corrosion/irritation May cause skin 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.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.







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Reproductive toxicity

No information available.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	Repr. 2

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

11.2.2. Other information

Other adverse effects

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

The environmental impact of this product has not been fully investigated.

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)
N,N-Dimethylacrylamide	-	LC50: >100mg/L 96h (Oncorhynchus mykiss)		EC50 > 120 mg/l 48 h (Daphnia magna)
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	· ·	LC50 10 mg/l 48 h (Oryzias latipes)		
2-Hydroxyethyl methacrylate	-	LC50: 213 - 242mg/L (96h, Pimephales promelas) LC50: =227mg/L (96h, Pimephales promelas)	-	EC50 > 380 mg/l 48 h (Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name

Partition coefficient

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Isobornyl Acrylate	4.52
N,N-Dimethylacrylamide	-0.3
1-Propanone, 2-hydroxy-2-methyl-1-phenyl-	1.62
iphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	3.1
2-Hydroxyethyl methacrylate	0.42

12.4. Mobility in soil

Mobility in soil

Dip

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
N,N-Dimethylacrylamide	The substance is not PBT / vPvB
1-Propanone, 2-hydroxy-2-methyl-1-phenyl-	The substance is not PBT / vPvB
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	The substance is not PBT / vPvB
2-Hydroxyethyl methacrylate	The substance is not PBT / vPvB
Bisphenol-A epoxy resin	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties

No information available

12.7. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products

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

environmental legislation.

Do not reuse empty containers. Contaminated packaging

SECTION 14: Transport information

IATA

14.1 UN number or ID number Not regulated 14.2 Extended Proper Shipping Not regulated Name

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

14.1 UN number or ID number Not regulated

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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	riot applicable	
Special Provisions	None	
14.7 Maritime transport in bulk	No information available	
according to IMO instruments		
according to mile menuments		
RID		
14.1 UN number or ID number	Not regulated	
14.2 Extended Proper Shipping	Not regulated	
Name		
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	
ADR_		
14.1 UN number or ID number	Not regulated	
14.2 Extended Proper Shipping	Not regulated	
Name		
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	

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.

Netherlands

Chemical name	Netherlands - List of	Netherlands - List of	Netherlands - List of
	Carcinogens	Mutagens	Reproductive Toxins
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	-	-	Fertility Category 2

European Union

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Manufacturer:

Dymax

Product Name:

Dymax OP-21G Plastic Bonding Adhesive, Optically Clear, Higher Viscosity vérsion of OP-21, UV Cure - 3ml Syringe

Manufacturer Part Number:

OP-21G-3ML

Click here for more details on the Dymax OP-21G Plastic Bonding Adhesive, Optically Clear, Higher Viscosity version of OP-21, UV Cure - 3ml Syringe

OP-21G - OP-21G

Revision date 06-Jul-2023

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

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
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide - 75980-60-8	75.	-
2-Hydroxyethyl methacrylate - 868-77-9	75.	-
Bisphenol-A epoxy resin - 25068-38-6	75.	-

Persistent Organic Pollutants

Not applicable

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

Not applicable

International Inventories
TSCA

Complies DSL/NDSL Listed on NDSL **EINECS/ELINCS** Complies ENCS Complies IECSC Record Notification **KECL** Complies PICCS Complies

Low Volume Exemption (LVE)

NZIoC Complies

Legend:

- 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

H301 - Toxic if swallowed H302 - Harmful if swallowed

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H311 - Toxic in contact with skin

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H361f - Suspected of damaging fertility

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

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

TWA (time-weighted average) STEL Ceiling Maximum limit value

Sensitizers

STEL (Short Term Exposure Limit)

Skin designation

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) (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)

National Institute of Technology and Evaluation (NITE)

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Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Revision date

06-Jul-2023

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

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End of Safety Data Sheet



