

Manufacturer:

Dymax®

Product Name:

Dymax OP-4-20632 Optical Adhesive, Optically Clear, UV Cure plus Heat Exposure - 3ml Syringe

Manufacturer Part Number:

OP-4-20632-3ML

Click here for more details on the Dymax OP-4-20632 Optical Adhesive, Optically Clear, UV Cure plus Heat Exposure - 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-4-20632

Issuing Date 02-May-2023 Revision date 02-May-2023 Revision Number 32

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

1.1. Product identifier

Product Name OP-4-20632

Mixture Pure substance/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 Manufacturing sites Dymax Corporation Dymax Asia Pacific Pte Ltd.

Dymax Asia Pacific Pte Ltd. Block 5008 (East Wing) Block 5008 (East Wing) 318 Industrial Lane Torrington, CT 06790 Ang Mo Kio Ave. 5 Ana Mo Kio Ave. 5 Tel: 860-482-1010 #05-3 TECHplace II #05-3 TECHplace II Fax: 860-496-0608 Singapore 569874 Singapore 569874 Tel: +65-6752-2887 Tel: +65-6752-2887 Fax: +65-6752-2813 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)-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

SECTION 2: Hazards identification

Page 1/16





Manufacturer:

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OP-4-20632 - OP-4-20632

Revision date 02-May-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 1 - (H318)
Skin sensitization	Category 1A - (H317)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Category 3 - Respiratory irritation	
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements





Signal word - Danger

Contains Acrylic Acid, Silane, trimethoxy[3-(oxiranylmethoxy)propyl]-, Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-, 4,4"-(1-Methylethylidene) bisphenol polymer with (chloromethyl)oxirane, 2-propenoate

Hazard statements

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

H412 - Harmful to aquatic life with long lasting effects EUH208 - Contains 3-Methacryloxypropyltrimethoxysilane 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.

2.3. Other hazards

No information available

Product Information

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

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

SECTION 3: Composition/information on ingredients

2 / 16 Page





Manufacturer:

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Product Name:

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Manufacturer Part Number:

OP-4-20632-3ML

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OP-4-20632 - OP-4-20632

Revision date 02-May-2023

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	CAS No	EC No (EU Index No)	REACH registration number	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4,4"-(1-Methylethylidene) bisphenol polymer with (chloromethyl)oxirane, 2-propenoate	55818-57-0	-	-	40-69	Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)
2-Hydroxyethyl methacrylate	868-77-9	(607-124-00-X) 212-782-2	01-2119490169-29- 0022	25-39	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)
Bisphenol-A epoxy resin	25068-38-6	(603-074-00-8)	-	5-9	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)
Acrylic Acid	79-10-7	(607-061-00-8) 201-177-9	-	3-<5	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Corr. 1A (H314) Aquatic Acute 1 (H400) Flam. Lig. 3 (H226)
Phosphine oxide, phenylbis(2,4,6-trimethylbe nzoyl)-	162881-26-7	(015-189-00-5) 423-340-5	-	<1	Skin Sens. 1A (H317) Aquatic Chronic 4 (H413)
3-Methacryloxypropyltrimet hoxysilane	2530-85-0	219-785-8	-	<1	Skin Sens. 1 (H317)
1,4-Benzenediol	123-31-9	(604-005-00-4) 204-617-8	-	<0.1	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 2 (H351) Aquatic Acute 1 (H400)

Chemical name	CAS No	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%		
Acrylic Acid	79-10-7	STOT SE 3 :: C>=1%		
1,4-Benzenediol	123-31-9		10	

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

Page 3/16





Manufacturer:

Dymax®

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OP-4-20632-3ML

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OP-4-20632 - OP-4-20632

Revision date 02-May-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	
2-Hydroxyethyl methacrylate	5050	3000			
Bisphenol-A epoxy resin	11400				
Acrylic Acid	193	2000	3.6 2.775		
Phosphine oxide, phenylbis(2,4,6-trimethylbe nzoyl)-	2000	2000			
3-Methacryloxypropyltrimet hoxysilane	23500	2000			
1,4-Benzenediol	298	74800			

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

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

SECTION 4: First aid measures

4.1. Description of first aid measures

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

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

concerned: Get medical advice/attention.

Get immediate medical attention. Rinse immediately with plenty of water, also under the Eye contact

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 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.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce

vomiting. Call a physician

Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Self-protection of the first aider

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

Page 4/16





Manufacturer:

Dymax®

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OP-4-20632 - **OP-4-20632** Revision date 02-May-2023

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. 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.

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.

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

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.

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.

Page 5 / 16





Manufacturer:

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OP-4-20632-3ML

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OP-4-20632 - OP-4-20632 Revision date 02-May-2023

7.2. Conditions for safe storage, including any incompatibilities

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

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	-
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/m³ STEL: 20 ppm STEL: 59 mg/m³ *	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
1,4-Benzenediol 123-31-9	-	TWA: 2 mg/m ³ STEL 4 mg/m ³ Sensitizer	TWA: 1 mg/m ³	TWA: 2.0 mg/m ³	TWA: 0.5 mg/m³ Skin Sensitisation
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/m³ H* STEL: 20 ppm 1 minute STEL: 59 mg/m³ 1 minute	TWA: 10 ppm TWA: 29 mg/m ³ STEL: 20 ppm STEL: 59 mg/m ³	TWA: 2 ppm TWA: 6 mg/m³ Ceiling: 15 ppm Ceiling: 45 mg/m³
1,4-Benzenediol 123-31-9	-	TWA: 2 mg/m³ Ceiling: 4 mg/m³ * Sensitizer	Ceiling: 2 mg/m ³	TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³	TWA: 0.5 mg/m ³ STEL: 2 mg/m ³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
2-Hydroxyethyl methacrylate 868-77-9	-	-	skin sensitizer	-	-
Acrylic Acid 79-10-7	TWA: 10 ppm TWA: 29 mg/m³ STEL: 20 ppm STEL: 59 mg/m³	TWA: 10 ppm TWA: 30 mg/m ³	TWA: 10 ppm TWA: 30 mg/m³ Peak: 10 ppm Peak: 30 mg/m³	TWA: 10 ppm TWA: 29 mg/m³ STEL: 20 ppm STEL: 59 mg/m³	TWA: 29 mg/m ³ STEL: 59 mg/m ³
1,4-Benzenediol 123-31-9	TWA: 2 mg/m ³	=	* skin sensitizer	TWA: 2 mg/m ³ STEL: 4 mg/m ³	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
2-Hydroxyethyl methacrylate 868-77-9	-	-	-	-	Sensitizer TWA: 20 mg/m³

Page 6 / 16







Manufacturer:

Dymax®

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Manufacturer Part Number:

OP-4-20632-3ML

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OP-4-20632 - OP-4-20632

Revision date 02-May-2023

Acrylic Acid 79-10-7	TWA: 10 ppm TWA: 29 mg/m³ STEL: 20 ppm STEL: 59 mg/m³	TWA: 29 ppm TWA: 10 mg/m³ STEL: 59 ppm STEL: 20 mg/m³ pelle*	TWA: 2 ppm TWA: 6 mg/m ³ *	TWA: 5 mg/m³ TWA: 1.7 ppm STEL: 59 mg/m³ STEL: 20 ppm	TWA: 10 ppm TWA: 29 mg/m³ Ceiling: 59 mg/m³ Ceiling: 20 ppm
1,4-Benzenediol 123-31-9	TWA: 0.5 mg/m³ STEL: 1.5 mg/m³ Sensitizer	-	TWA: 1 mg/m ³	-	Sensitizer TWA: 0.5 mg/m ³ STEL: 1.5 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	-
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/m³ TWA: 10 mg/m³ *
1,4-Benzenediol 123-31-9	-	-	-	TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³	STEL: 2 mg/m ³ TWA: 1 mg/m ³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Acrylic Acid 79-10-7	TWA: 10 ppm TWA: 29 mg/m³ STEL: 59 mg/m³ STEL: 20 ppm P*	TWA: 10 ppm TWA: 29 mg/m³ STEL: 20 ppm STEL: 59 mg/m³	TWA: 10 ppm TWA: 29 mg/m³ Ceiling: 59 mg/m³	TWA: 29 mg/m³ TWA: 10 ppm STEL: 20 ppm STEL: 59 mg/m³	TWA: 10 ppm TWA: 29 mg/m³ STEL: 20 ppm STEL: 59 mg/m³ vía dérmica*
1,4-Benzenediol 123-31-9	TWA: 1 mg/m ³ Sensitizer dermal	TWA: 1 mg/m ³ STEL: 2 mg/m ³	TWA: 2 mg/m ³	-	TWA: 2 mg/m ³ sensitizer
Chemical name	Sweden	Switzerland	United Kingdom		
Acrylic Acid 79-10-7	NGV: 10 ppm NGV: 29 mg/m³ Bindande KGV: 20 ppm Bindande KGV: 59 mg/m³	TWA: 10 ppm TWA: 29 mg/m³ STEL: 20 ppm STEL: 59 mg/m³	TWA: 10 ppm TWA: 29 mg/m³ STEL: 20 ppm STEL: 59 mg/m³		
1,4-Benzenediol 123-31-9	NGV: 0.5 mg/m³ Vägledande KGV: 1.5 mg/m³ Sensitizer	TWA: 2 mg/m³ STEL: 2 mg/m³ H*	TWA: 0.5 mg/m ³ STEL: 1.5 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.

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Engineering controls No information available.

Page 7 / 16





Manufacturer:

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Manufacturer Part Number:

OP-4-20632-3ML

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OP-4-20632 - OP-4-20632

Revision date 02-May-2023

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.

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

None known

not eat, drink or smoke when using this product.

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 transparent
Color colorless
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 No data available limits

Lower flammability or explosive No data available

 limits

 Flash point
 101 - °C

 Pensky-Martens Closed Cup (PMCC)

Autoignition temperature 438 °C
Decomposition temperature

pH No data available
pH (as aqueous solution) No data available
Kinematic viscosity No data available
Dynamic viscosity 500 cP
Water solubility No data available
Solubility(ies) No data available
Partition coefficient No data available
Vapor pressure No data available
Relative density No data available

Relative density

Bulk density

Liquid Density

Relative vapor density

No data available

No data available

No data available

Particle characteristics
Particle Size
Particle Size Distribution
No information available
No information available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not applicable

Page 8 / 16





Manufacturer:

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Manufacturer Part Number:

OP-4-20632-3ML

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

OP-4-20632 - OP-4-20632 Revision date 02-May-2023

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.

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.

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

Page 9 / 16





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OP-4-20632 - OP-4-20632

Revision date 02-May-2023

Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral) 6,388.50 mg/kg
ATEmix (dermal) 8,616.60 mg/kg
ATEmix (inhalation-dust/mist) 56.10 mg/l

Component Information

Component information			
Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2-Hydroxyethyl methacrylate	= 5050 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
Bisphenol-A epoxy resin	= 11400 mg/kg (Rat)	-	-
Acrylic Acid	= 193 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 11.1 mg/L (Rat) 1 h = 3.6 mg/L (Rat) 4 h
Phosphine oxide,	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
phenylbis(2,4,6-trimethylbenzoyl			
3-Methacryloxypropyltrimethoxy silane	= 23.5 g/kg (Rat)	> 2000 mg/kg (Rat)	> 2.28 mg/L (Rat) 6 h
1,4-Benzenediol	= 298 mg/kg (Rat)	= 74800 mg/kg (Rabbit)	-

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.

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

Chemical name	European Union
1,4-Benzenediol	Muta. 2

Carcinogenicity No information available

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

Chemical name	European Union
1,4-Benzenediol	Carc. 2

Reproductive toxicity No information available.

STOT - single exposure May cause respiratory irritation.

STOT - repeated exposure No information available.

Page 10 / 16





Manufacturer:

Dymax®

Product Name:

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Manufacturer Part Number:

OP-4-20632-3ML

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OP-4-20632 - **OP-4-20632** Revision date 02-May-2023

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 Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
2-Hydroxyethyl	-	LC50: 213 - 242mg/L	-	EC50 > 380 mg/l 48 h
methacrylate		(96h, Pimephales		(Daphnia magna)
		promelas)		` '
		LC50: =227mg/L (96h,		
		Pimephales promelas)		
Acrylic Acid	EC50: =0.04mg/L	LC50: =222mg/L (96h,	-	EC50:=95mg/L (48h,
	(72h, Desmodesmus	Brachydanio rerio) NOEC:		Daphnia magna)
	subspicatus)	>= 10.1mg/L (45d,		NOEC: =3.8mg/L (21d,
	EC50: =0.17mg/L	Oryzias latipes, OECD		Daphnia magna)
	(96h, Pseudokirchneriella			, , ,
	subcapitata)	ĺ ,		
Phosphine oxide,	-	LC50: >90µg/L	-	-
phenylbis(2,4,6-trimethyl		(96h, Danio rerio)		
benzoyl)-				
3-Methacryloxypropyltrim	EC50 > 536,00 mg/l 72 h	LC50: >100mg/L	-	EC50 > 876,00 mg/l 48 h
ethoxysilane	(Scenedesmus	(96h Danio rerio)		(Daphnia magna)
1	subspicatus)	, , , , , , , , , , , , , , , , , , ,		` '
1,4-Benzenediol	EC50: =0.335mg/L (72h,	LC50: =0.044mg/L (96h,	-	EC50: =0.29mg/L (48h,
	Pseudokirchneriella	Oncorhynchus mykiss)		Daphnia magna)
	subcapitata)	LC50: =0.044mg/L (96h,		
	. ,	Pimephales promelas)		
		LC50: 0.1 - 0.18mg/L		
		(96h, Pimephales		
		promelas)		
		LC50: =0.17mg/L (96h,		
		Brachydanio rerio)		

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
4,4"-(1-Methylethylidene) bisphenol polymer with	3.8

Page 11 / 16





Manufacturer:

Dymax®

Product Name:

Dymax OP-4-20632 Optical Adhesive, Optically Clear, UV Cure plus Heat Exposure - 3ml Syringe

Revision date 02-May-2023

Manufacturer Part Number:

OP-4-20632-3ML

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

OP-4-20632 - OP-4-20632

(chloromethyl)oxirane, 2-propenoate	
2-Hydroxyethyl methacrylate	0.42
Acrylic Acid	0.46
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	5.8
3-Methacryloxypropyltrimethoxysilane	2.1
1,4-Benzenediol	0.59

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

The product does not contain any substance(s) classified as PBT or vPvB above the PBT and vPvB assessment

threshold of declaration.

Chemical name	PBT and vPvB assessment
4,4"-(1-Methylethylidene) bisphenol polymer with (chloromethyl)oxirane,	The substance is not PBT / vPvB
2-propenoate	
2-Hydroxyethyl methacrylate	The substance is not PBT / vPvB
Bisphenol-A epoxy resin	The substance is not PBT / vPvB
Acrylic Acid	The substance is not PBT / vPvB
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	The substance is not PBT / vPvB
3-Methacryloxypropyltrimethoxysilane	The substance is not PBT / vPvB
1,4-Benzenediol	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available

12.7. Other adverse effectsNo 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

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 Not regulated Not applicable

14.4 Packing group 14.5 Environmental hazards 14.6 Special precautions for user **Special Provisions**

None

Page 12 / 16





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OP-4-20632-3ML

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OP-4-20632 - OP-4-20632

Revision date 02-May-2023

IMDG	
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
14.7 Maritime transport in bulk	No information available
according to IMO instruments	
DID.	
RID 14.1 UN number or ID number	Niet een dete d
	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 regulated Not applicable
14.6 Special precautions for user	Not applicable
Special Provisions	None
Special Provisions	Notice
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
	1,4-Benzenediol - 123-31-9	RG 65

Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1) 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	Substance subject to authorization per
	Annex XVII	REACH Annex XIV

Page 13 / 16





Manufacturer:

Dymax®

Product Name:

Dymax OP-4-20632 Optical Adhesive, Optically Clear, UV Cure plus Heat Exposure - 3ml Syringe

Revision date 02-May-2023

Manufacturer Part Number:

OP-4-20632-3ML

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OP-4-20632 - OP-4-20632

2-Hydroxyethyl methacrylate - 868-77-9	75.	-
Bisphenol-A epoxy resin - 25068-38-6	75.	-
Acrylic Acid - 79-10-7	75.	-
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	75.	-
- 162881-26-7		

Persistent Organic Pollutants

Not applicable

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

1,4-Benzenediol - 123-31-9

Not applicable

International Inventories
TSCA

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

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

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

H332 - Harmful if inhaled

H341 - Suspected of causing genetic defects

Page 14 / 16





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OP-4-20632 - OP-4-20632

Revision date 02-May-2023

H351 - Suspected of causing cancer

H400 - Very toxic to aquatic life

H411 - Toxic to aquatic life with long lasting effects

H413 - May cause long lasting harmful effects to aquatic life

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 (time-weighted average) STEL STEL (Short Term Exposure Limit)

Maximum limit value Ceilina 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) (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)

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

Page 15 / 16





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OP-4-20632-3ML

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OP-4-20632 - OP-4-20632

Revision date 02-May-2023

World Health Organization

Revision date

02-May-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

Page 16 / 16

