Safety Data Sheet

according to HazCom 2012

SDS # : OP-4-20632-GEL

OP-4-20632-GEL

Issue Date 2018-05-15 **Revision Date** 2018-05-15 **Version** 4

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name OP-4-20632-GEL

Other means of identification

Product Code OP-4-20632-GEL

Synonyms Not applicable

Recommended use of the chemical and restrictions on use

Identified uses Adhesives.

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address Dymax Corporation
318 Industrial Lane
Torrington, CT 06790
Tel: 860-482-1010
Fax: 860-496-0608

Information department: North American Safety Department @ 1-860-482-1010

Emergency Telephone North America: Chemtrec @ 1-800-424-9300 (24hrs)

2. HAZARDS IDENTIFICATION

Emergency Overview

Physical state liquid (gel)

Odor Characteristic

Color colorless

Appearance translucent

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1B
Specific target organ toxicity (single exposure)	Category 3

Target Organ Effects

Respiratory system, EYES, Skin.

GHS Label elements, including precautionary statements

Signal word Danger

Hazard statements
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness

Precautionary Statements - Prevention
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Contaminated work clothing should not be allowed out of the workplace
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

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

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)
None

Other Information
Unknown acute toxicity
0 % of the mixture consists of ingredient(s) of unknown toxicity.

Environmental product testing for acute and chronic aquatic effects determined classification to be Category 3

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Chemical Name	CAS No.	Weight-%	Trade Secret	Classification (Reg. 1272/2008)
4,4'-Isopropylidenediphenol	55818-57-0	40-69	*	
2-Hydroxyethyl methacrylate	868-77-9	10-24	*	Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Skin Sens. 1 (H317)
Epoxy resin	Proprietary	4-9	*	Skin Irrit. Cat 2 (H315) Eye Irrit. Cat 2 (H319) Skin Sens. Cat 1 (H317) Aquatic Chronic Cat 2 (H411)

Acrylic acid	79-10-7	4-9	*	Flam. Liq. Cat 3 (H226) Acute Tox. Cat 4 (H302) Acute Tox. Cat 4 (H312) Acute Tox. Cat 4 (H332) Skin Corr. Cat 1A (H314) Aquatic Acute Cat 1 (H400)
Silane Coupling Agent	Proprietary	<1	*	Skin Sens. 1 (H317)
Visible Photoinitator	Proprietary	<1	*	Skin Sens. 1 (H317) Aquatic Chronic 4 (H413)

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4. FIRST AID MEASURES

First aid measures

General advice
IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Eye contact
Flush eyes with water for at least 15 minutes. Get medical attention if eye irritation develops or persists.

Skin Contact
Wash off immediately with plenty of water, Get medical attention if irritation develops and persists.

Inhalation
Remove to fresh air, If symptoms persist, call a physician.

Ingestion
If swallowed, Rinse mouth, Get medical attention.

Self-protection of the first aider
Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Main Symptoms
No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use CO2, dry chemical, or foam.

Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

Hazardous combustion products
Hazardous decomposition products due to incomplete combustion.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation, Wear protective gloves/clothing and eye/face protection.

Environmental precautions

Environmental precautions
Do not allow material to contaminate ground water system, Try to prevent the material from entering drains or water courses, See Section 12 for additional Ecological Information, Local authorities should be advised if significant spillages cannot be contained.

Other Information
See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice
Ensure adequate ventilation
Protect from light

Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Keep container tightly closed in a dry and well-ventilated place
Protect from light

Incompatible products
Amines, Strong oxidizing agents, Strong acids, Strong bases, Oxygen scavengers, Thiosulfates.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Exposure Guidelines
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Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acrylic acid 4-9	TWA: 2 ppm S*	(vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m^3 S*	TWA: 2 ppm TWA: 6 mg/m^3

ACGIH (American Conference of Governmental Industrial Hygienists)
TLV - Threshold Limit Value
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEL - Permissible Exposure Limits
NIOSH IDLH
Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Measures
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Individual protection measures, such as personal protective equipment

Eye/face protection
Safety glasses with side-shields, If splashes are likely to occur, wear:, Goggles.

Skin and body protection
Wear protective gloves and protective 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, Do not breathe vapors, mist or gas.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice, When using do not eat, drink or smoke, Wear suitable gloves and eye/face protection, Wash hands before breaks and at the end of workday, Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid (gel)		
Appearance	translucent	**Odor**	Characteristic
Color	colorless	**Odor threshold**	No information available

Property	**Values**	**Remarks / • Method**
pH		No information available
Melting point / freezing point		No information available
Boiling point / boiling range		No information available
Flash point	260 °C / 500 °F	
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Flammability Limit in Air		
Upper flammability limit	-	
Lower flammability limit	-	
Vapor pressure		No information available
Vapor density		No information available
Specific Gravity		No information available
Water Solubility	Practically insoluble	
Solubility in other solvents		No information available
Partition coefficient: n-octanol/water		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Dynamic viscosity	50,000 cP	
Kinematic viscosity		No information available
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Protect from light. Heat, flames and sparks.

Incompatible materials
Amines, Strong oxidizing agents, Strong acids, Strong bases, Oxygen scavengers.

Hazardous Decomposition Products
No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Information on likely routes of exposure

Inhalation	There is no data for this product
Eye contact	There is no data for this product
Skin Contact	There is no data for this product
Ingestion	There is no data for this product
Symptoms	No information available.

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

Sensitization	May cause sensitization of susceptible persons.
Mutagenic effects	No information available.
Reproductive toxicity	No information available.
Carcinogenicity	Contains no ingredients above reportable quantities listed as a carcinogen.
Target Organ Effects	Respiratory system, EYES, Skin.
Aspiration hazard	No information available.

Other adverse effects No information available.

Chronic toxicity Repeated contact may cause allergic reactions in very susceptible persons
Avoid repeated exposure
Possible risks of irreversible effects

Numerical measures of toxicity - Product Information

0 % of the mixture consists of ingredient(s) of unknown toxicity

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

ATEmix (oral) 10101 mg/kg
ATEmix (dermal) 22222 mg/kg
ATEmix (inhalation-dust/mist) 30.3 mg/l
ATEmix (inhalation-vapor) 222 mg/l

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Hydroxyethyl methacrylate	= 5050 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	
Epoxy resin	= 11400 mg/kg (Rat)		
Acrylic acid	= 193 mg/kg (Rat) = 33500 µg/kg (Rat)	= 280 µL/kg (Rabbit) = 295 mg/kg (Rabbit)	= 5300 mg/m³ (Rat) 2 h
Silane Coupling Agent	> 5000 mg/kg (Rat)		
Visible Photoinitator		> 2,000 mg/kg (Rat)	

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Acute aquatic toxicity

Product Information
Environmental product testing for acute and chronic aquatic effects determined classification to be Category 3
Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
2-Hydroxyethyl methacrylate	-	LC50 = 227 mg/L 96 h (Pimephales promelas)	EC50 > 380 mg/l 48 h (Daphnia magna)
Acrylic acid	EC50 0.04 mg/L 72 h (Desmodesmus subspicatus)	LC50 = 222 mg/L 96 h (Brachydanio rerio)	EC50 = 95 mg/L 48 h
Silane Coupling Agent	EC50 > 536,00 mg/l 72 h (Scenedesmus subspicatus)	LC50 > 1024,00 mg/l 96 h (Brachydanio rerio)	EC50 > 876,00 mg/l 48 h (Daphnia magna)
Visible Photoinitator	EC50 > 0.26 mg/l 72 h (Scenedesmus sp.)	LC50 > 0.09 mg/l 96 h (Brachydanio rerio)	EC50 > 1.175 mg/l 48 h (Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation
Component Information

Chemical Name	log Pow
2-Hydroxyethyl methacrylate	0.47
Acrylic acid	0.46

Mobility in soil

No product level data available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Methods
Dispose of waste in compliance with local and national regulations.

Contaminated packaging
Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

DOT	Not regulated
ICAO/IATA	Not regulated
IMDG/IMO	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
AICS	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECI	Complies
NZIoC	Complies
PICCS	Complies
TCSI	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
AICS - Australian Inventory of Chemical Substances
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
NZIoC - New Zealand Inventory of Chemicals
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substance Inventory

US Federal Regulations

OSHA Regulatory Status
This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	SARA 313 - Threshold Values %

Acrylic acid	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acrylic acid	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
1,4-dihydroxybenzene hydroquinone quinol	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Acrylic acid	X	X	X
1,4-dihydroxybenzene hydroquinone quinol	X	X	X

16. OTHER INFORMATION

Prepared By EHS Department
Revision Date 2018-05-15

Revision Note No information available

Disclaimer

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