

Safety Data Sheet

according to Regulation (EC) No. 2015/830

OP-61-LS

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Issue Date 2018-04-06

Revision Date 2018-04-06

Version 4

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name OP-61-LS

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Adhesives
 Uses advised against No information available

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 Europe GmbH Kasteler Strasse 45, Building G 359 65203 Wiesbaden, Germany Phone: +49 (0) 611.962.7900 Fax: +49 (0) 611.962.9440	Supplier Dymax Europe GmbH Kasteler Strasse 45, Building G 359 65203 Wiesbaden, Germany Phone: +49 (0) 611.962.7900 Fax: +49 (0) 611.962.9440
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For further information, please contact:

Contact Point Mr. Wolfgang Lorscheider
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1.4 Emergency Telephone

Emergency Telephone Chemtrec 001-703-527-3887 (24hrs)

Austria + (43)-13649237	Germany 0800-181-7059	Netherlands + (31)-858880596	Switzerland + (41)435082011
Belgium + (32)-28083237	Greece + (30)-2111768478	Norway + (47)-21930678	Ukraine + (380)-947101374
Bulgaria + (359)-32570104	Hungary + (36)-18088425	Poland + (48)-223988029	UK (London) + (44)-870-8200418
Croatia + (385)-17776920	Ireland + (353)-19014670	Portugal + (351)-308801773	
Czech Republic + (420)-228880039	Italy 800-789-767	Slovakia + (423)-233057972	Israel (IL) + (972)-37630639
Denmark + (45)-69918573	Latvia + (371)-66165504	Slovenia + (386)-18888016	Russia 8-800-100-6346
Finland	Lithuania + (370)-52140238	Spain 900-868538	Saudi Arabia + (966)-8111095861
France	Luxembourg + (352)-20202416	Sweden + (46)-852503403	Turkey + (90)-212-7055340
Australia + (61)-290372994	India 000-800-100-7141	Indonesia 001-803-017-9114	New Zealand + (64)-98010034
Malaysia + (60)-327884561	Singapore 800-101-2201	Taiwan 00801-14-8954	Thailand 001-800-13-203-9987

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture 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 sensitisation	Category 1B - (H317)
Specific target organ toxicity (STOT) — single exposure	Category 3 - (H335)

Physical hazards

None

Target Organ Effects

Respiratory system, EYES, Skin.

2.2 Label elements**Signal word****Warning****Hazard statements**

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

Contains Isobornyl Acrylate, 2-Hydroxyethyl methacrylate

Contains 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, 3-trimethoxysilylpropylmethacrylate, Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)- - EUH208 - May produce an allergic reaction

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Avoid breathing dust/fume/gas/mist/vapours/spray

Contaminated work clothing should not be allowed out of the workplace

Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

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

IF ON SKIN: Gently wash with plenty of soap and water

Take off contaminated clothing and wash it before reuse

Precautionary Statements - Storage

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

Store locked up

Precautionary Statements - Disposal

Dispose of contents/containers in accordance with local regulations

2.3 Other Information**Unknown Acute Toxicity**

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

Testing for acute and chronic aquatic effects determined no environmental classification is required.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances****3.2. Mixtures****Hazardous components**

Chemical Name	EC No	CAS No	Weight-%	REACH Registration Number	GHS Classification
Isobornyl Acrylate	227-561-6	5888-33-5	10 - 24	01-2119957862-25-0011	Skin Irrit. Cat 2 (H315) Eye Irrit. Cat 2A (H319) Skin Sens. Cat 1 (H317) STOT SE Cat 3 (H335) Aquatic Chronic 1 (H411)
2-Hydroxyethyl methacrylate	212-782-2	868-77-9	5 - 9	01-2119490169-29-0022	Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Skin Sens. 1 (H317)
Acrylic acid	201-177-9	79-10-7	1 - <3		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)
2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]- 1,3-propanediyl ester	239-701-3	15625-89-5	<1		Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Skin Sens. 1A (H317) Aquatic Acute 3 (H402)
3-trimethoxysilylpropylmethacrylate	219-785-8	2530-85-0	<1		Skin Sens. 1 (H317)
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	423-340-5	162881-26-7	<1		Skin Sens. 1 (H317) Aquatic Chronic 4 (H413)

Remaining ingredients are not considered hazardous in accordance with the Globally Harmonized System (GHS)

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

Section 4: First aid measures

4.1 Description of first aid measures

General advice

Use first aid treatment according to the nature of the injury.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Eye contact

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

Inhalation

Remove to fresh air, If symptoms persist, call a doctor.

Ingestion

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.

4.2. Most important symptoms and effects, both acute and delayed

Main symptoms

Itching. Rashes.

4.3 Indication of any immediate medical attention and special treatment needed

Note to doctors

Treat symptomatically.

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

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.

5.2 Special hazards arising from the substance or mixture.

Specific hazards arising from the chemical

Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

Hazardous combustion products

Hazardous decomposition products due to incomplete combustion.

5.3 Advice for firefighters

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit, Wear personal protective equipment.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Ensure adequate ventilation. Wear personal protective equipment.

For emergency responders

Use personal protection recommended in Section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so

Try to prevent the material from entering drains or water courses

Local authorities should be advised if significant spillages cannot be contained

See Section 12 for additional Ecological Information

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

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

6.4. Reference to other sections

See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling.

Advice on safe handling

Ensure adequate ventilation

Protect from light

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Avoid breathing vapours, mist or gas

Wash hands before breaks and at the end of workday

Regular cleaning of equipment, work area and clothing is recommended
 When using do not eat, drink or smoke
 Contaminated work clothing should not be allowed out of the workplace

7.2 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
 Store locked up

7.3 Specific end uses

Exposure scenario

No information available.

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Limits

Chemical Name	Ireland	Norway	Poland	Portugal	Switzerland
Isobornyl Acrylate 10 - 24					S+
2-Hydroxyethyl methacrylate 5 - 9		TWA 2 ppm TWA 11 mg/m ³ A+ STEL 4 ppm STEL 16.5 mg/m ³			S+
Acrylic acid 1 - <3	TWA 2 ppm TWA 6 mg/m ³ STEL 6 ppm STEL 18 mg/m ³	TWA 10 ppm TWA 30 mg/m ³ STEL 15 ppm STEL 45 mg/m ³	TWA 10 mg/m ³ STEL 29.5 mg/m ³	TWA 2 ppm C(A4) P*	SS-C** TWA 10 ppm TWA 30 mg/m ³ STEL 10 ppm STEL 30 mg/m ³
2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1, 3-propanediyl ester <1					S+
3-trimethoxysilylpropylmethacrylate <1					S+

Chemical Name	Germany	The Netherlands	Austria	Italy	Spain
Acrylic acid 1 - <3	AGW 10 ppm AGW 30 mg/m ³				TWA 2 ppm TWA 6 mg/m ³ S*

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

8.2 Exposure controls

Occupational exposure controls

Engineering Measures

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

Hygiene Measures

When using do not eat, drink or smoke, Wash hands before eating, drinking or smoking, Avoid contact with skin, eyes or clothing.

Personal protective equipment**General Information**

Use personal protective equipment in good condition.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand Protection

Nitrile rubber, Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Eye/face protection

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

Skin and body protection

Long sleeved clothing, Apron, Impervious gloves.

Environmental Exposure Controls

Do not allow material to contaminate ground water system.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	(paste)	Odour	Characteristic
Appearance	opaque	Odour threshold	No information available
Colour	white to off-white		
Property	Values	Remarks • Method	
pH		No information available	
Melting point / freezing point		No information available	
Boiling point / boiling range	120 °C	No information available	
Flash point	101 °C / 214 °F		
Evaporation rate		No information available	
Flammability (solid, gas)		No information available	
Flammability Limit in Air			
Upper flammability limit		No information available	
Lower flammability limit		No information available	
Vapour pressure		No information available	
Vapour 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	60,000 cP		
Kinematic viscosity		No information available	
Explosive properties	No information available		
Oxidising properties	No information available		
9.2 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

Section 10: Stability and reactivity

10.1 Reactivity

Reactivity

None under normal use conditions.

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

Hazardous polymerisation

None under normal processing.

Hazardous Reactions

None under normal processing.

10.4 Conditions to avoid

Protect from light, Heat, flames and sparks.

10.5 Incompatible materials

Amines, Oxygen scavengers, Strong oxidising agents, Strong acids, Strong bases, Thiosulfates.

10.6 Hazardous Decomposition Products

None under normal use conditions.

Section 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product Information

Product does not present an acute toxicity hazard based on known or supplied information.

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.

Unknown acute toxicity

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)	30,303.00 mg/kg
ATEmix (dermal)	66,667.00 mg/kg
ATEmix (inhalation-dust/mist)	90.90 mg/l
ATEmix (inhalation-vapour)	667.00 mg/l

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Isobornyl Acrylate	= 4890 mg/kg (Rat)	> 5 g/kg (Rabbit)	
2-Hydroxyethyl methacrylate	= 5050 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	
Acrylic acid	= 193 mg/kg (Rat) = 33500 µg/kg (Rat)	= 280 µL/kg (Rabbit) = 295 mg/kg (Rabbit)	= 5300 mg/m ³ (Rat) 2 h
2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester	= 5190 µL/kg (Rat)	= 5000 mg/kg (Rabbit)	
3-trimethoxysilylpropylmethacrylate	> 5000 mg/kg (Rat)		
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-		> 2,000 mg/kg (Rat)	

Skin corrosion/irritation

No information available.

Serious eye damage/eye irritation

No information available.

Sensitisation

May cause sensitisation of susceptible persons.

Mutagenic effects

No information available.

Carcinogenic effects

No information available

Reproductive toxicity

No information available.

**STOT - single exposure
Target Organ Effects**STOT - single exposure
Respiratory system, EYES, Skin.**Aspiration hazard**

No information available.

Section 12: Ecological information

12.1 Toxicity

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

Acute aquatic toxicity**Product Information**

Testing for acute and chronic aquatic effects determined no environmental classification is required.

Component Information

Chemical Name	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to algae
Isobornyl Acrylate	LC50 = 1.8 mg/L 96 h (Danio rerio)	EC 50 = 1.1 mg/L 48 h (Daphnia magna)	ErC 50 = 2.7 mg/L 96 h (Pseudokirchneriella subcapitata)
2-Hydroxyethyl methacrylate	LC50 = 227 mg/L 96 h (Pimephales promelas)	EC50 > 380 mg/l 48 h (Daphnia magna)	-
Acrylic acid	LC50 = 222 mg/L 96 h (Brachydanio rerio)	EC50 = 95 mg/L 48 h	EC50 0.04 mg/L 72 h (Desmodesmus subspicatus)

3-trimethoxysilylpropylmethacrylate	LC50 > 1024,00 mg/l 96 h (Brachydanio rerio)	EC50 > 876,00 mg/l 48 h (Daphnia magna)	EC50 > 536,00 mg/l 72 h (Scenedesmus subspicatus)
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	LC50 > 0.09 mg/l 96 h (Brachydanio rerio)	EC50 > 1.175 mg/l 48 h (Daphnia magna)	EC50 > 0.26 mg/l 72 h (Scenedesmus sp.)

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Chemical Name	log Pow
Isobornyl Acrylate	4.52
2-Hydroxyethyl methacrylate	0.47
Acrylic acid	0.46
2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester	0.67

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects.

None

Section 13: DISPOSAL CONSIDERATIONS

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

Should not be released into the environment, Dispose of in accordance with local regulations.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal, Dispose of as hazardous waste in compliance with local and national regulations.

Other Information

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: Transport information

IMDG/IMO

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

ADR/RID

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	Not regulated

14.5 Fish and tree Not applicable
 14.6 Special Provisions None

ICAO/IATA

14.1 UN/ID no Not regulated
 14.2 Proper shipping name Not regulated
 14.3 Hazard Class Not regulated
 14.4 Packing Group Not regulated
 14.5 Fish and tree Not applicable
 14.6 Special Provisions None

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**WGK Classification**

Water endangering class = 1 (self classification)

International Inventories

AICS	Not listed
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECI	Complies
PICCS	Not listed
NZIoC	Not listed
TCSI	Not listed
TSCA	Complies

Legend:

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

15.2 Chemical Safety Assessment

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 vapour
 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
 H351 - Suspected of causing cancer
 H400 - Very toxic to aquatic life

H402 - Harmful to aquatic life
 H411 - 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 Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA:	time weighted average	STEL:	Short term exposure limit
Ceiling:	Maximum limit value:	S*	Skin designation

Revision Date 2018-04-06

Revision Note Not applicable.

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

Disclaimer

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