

Safety Data Sheet

according to Regulation (EC) No. 2015/830

9-911-REV-A
9-911-REV-A
Issue Date 2020-11-27

Revision Date 2020-11-27

Version 5

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

1.1 Product identifier

Product Name 9-911-REV-A

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
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Supplier

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For further information, please contact:

Contact Point
E-mail Address

 Mr. Wolfgang Lorscheider
 wlorscheider@dymax.com

1.4 Emergency Telephone

Poison Information Centre telephone number
Emergency Telephone

Chemtrec @ 001-703-741-5970 (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

Regulation (EC) No 1272/2008

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitisation	Category 1 - (H317)

Specific target organ toxicity — single exposure	Category 3 - (H335)
Chronic aquatic toxicity	Category 3 -(H412)

Physical hazards

None

Target Organ Effects

Respiratory system, EYES, Skin.

2.2 Label elements

Signal word

Danger

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

Contains Isobornyl Acrylate, 2-Hydroxyethyl methacrylate, Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-, Maleic Acid
 Contains tert-Butyl Perbenzoate, 3-trimethoxysilylpropylmethacrylate - 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

Use only outdoors or in a well-ventilated area

Avoid release to the environment

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

Precautionary Statements - Storage

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

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

2.3 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.

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	25 - 39	01-2119957862-25-0011	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) STOT SE 3 (H335) Aquatic Chronic 2 (H411)
2-Hydroxyethyl methacrylate	212-782-2	868-77-9	25 - 39	01-2119490169-29-0022	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)
Acrylic acid	201-177-9	79-10-7	3 - <5	-	Flam. Liq. 3 (H226) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Corr. 1 (H314) Aquatic Acute 1 (H400)
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	423-340-5	162881-26-7	1 - <3	-	Skin Sens. 1A (H317) Aquatic Chronic 4 (H413)
Maleic Acid	203-742-5	110-16-7	1 - <3	-	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Acute 3 (402)
tert-Butyl Perbenzoate	210-382-2	614-45-9	<1	-	Org. Perox C (H242) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)
2,2-Dimethoxy-1,2-diphenyl ethanone	246-386-6	24650-42-8	<1	-	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
3-trimethoxysilylpropylmethacrylate	219-785-8	2530-85-0	<1	-	Skin Sens. 1 (H317)

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 25 - 39					S+
2-Hydroxyethyl methacrylate 25 - 39		TWA 2 ppm TWA 11 mg/m ³ A+ STEL 4 ppm STEL 16.5 mg/m ³			S+
Acrylic acid 3 - <5	TWA 10 ppm TWA 29 mg/m ³ STEL 20 ppm STEL 59 mg/m ³	TWA 10 ppm TWA 29 mg/m ³ A+ STEL 15 ppm STEL 43.5 mg/m ³	TWA 10 mg/m ³ STEL 29.5 mg/m ³	TWA 10 ppm TWA 29 mg/m ³ STEL 59 mg/m ³ STEL 20 ppm C(A4) P*	SS-C** TWA 10 ppm TWA 29 mg/m ³ STEL 20 ppm STEL 59 mg/m ³
3-trimethoxysilylpropylmethacrylate <1					S+

Chemical Name	Germany	The Netherlands	Austria	Italy	Spain
Acrylic acid 3 - <5	AGW 10 ppm AGW 30 mg/m ³	STEL 59 mg/m ³ TWA 29 mg/m ³	STEL 20 ppm STEL 59 mg/m ³ TWA 10 ppm TWA 29 mg/m ³	TWA 29 ppm TWA 10 mg/m ³ STEL 59 ppm STEL 20 mg/m ³ Pelle*	TWA 10 ppm TWA 29 mg/m ³ STEL 20 ppm STEL 59 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, (NBR: 6mm), 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	liquid (gel)	Odour	Characteristic
Appearance	translucent	Odour threshold	No information available
Colour	colourless		
Property	Values	Remarks • Method	
pH		No information available	
Melting point / freezing point		No information available	
Boiling point / boiling range		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	36,000 cP		

Kinematic viscosity	No information available	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**

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.

Numerical measures of 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)	4,622.30 mg/kg
ATEmix (dermal)	6,128.70 mg/kg
ATEmix (inhalation-dust/mist)	32.73 mg/l
ATEmix (inhalation-vapour)	240.00 mg/l

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Isobornyl Acrylate	= 4890 mg/kg (Rat)		
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
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	
Maleic Acid	= 708 mg/kg (Rat)	= 1560 mg/kg (Rabbit)	> 720 mg/m ³ (Rat) 1 h
tert-Butyl Perbenzoate	= 4838 mg/kg (Rat)	= 3,817 mg/kg (Rabbit)	
2,2-Dimethoxy-1,2-diphenyl ethanone	>2000 mg/kg (Rat)		
3-trimethoxysilylpropylmethacrylate	> 5000 mg/kg (Rat)		

Skin corrosion/irritation

Irritating to skin.

Serious eye damage/eye irritation

Risk of serious damage to eyes.

Sensitisation

May cause sensitisation of susceptible persons.

Carcinogenic effects

Mutagenic effects

No information available.

Reproductive toxicity

No information available.

STOT - single exposure

STOT - repeated exposure

No information available

Aspiration hazard

No information available.

Section 12: Ecological information

12.1 Toxicity

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 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 (Daphnia magna)	EC50 0.04 mg/L 72 h (Desmodesmus subspicatus)
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)- Maleic Acid	LC50: semi-static 90µg/L 96h (Danio rerio)	-	-
Maleic Acid	LC50= 5 mg/L 96 h (Pimephales promelas)	EC50 250-400 48 h (Daphnia magna)	-
tert-Butyl Perbenzoate	LC50 1.6 mg/l 96 h (Brachydanio rerio)	EC50 11 mg/L 48 h (Daphnia magna)	EC50 1.3 mg/l 72 h (Pseudokirchneriella subcapitata)
2,2-Dimethoxy-1,2-diphenyl ethanone	LC50 6 mg/L 96 h (Lepomis macrochirus)	EC50 26 mg/L 48 h (Daphnia magna)	EC50 0.17 mg/L 72 h
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)

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
Maleic Acid	0.32
tert-Butyl Perbenzoate	3

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 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	Not listed
IECSC	Simplified Notification
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
 H242 - Heating may cause a fire
 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
 H335 - May cause respiratory irritation
 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
 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 2020-11-27

Revision Note Not applicable.

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

Disclaimer

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