chanhvinh.com

Making Manufacturers More Efficient
ISO 9001 Certified

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: HazCom 2012

9-911-REV-B

Issuing Date 10-Nov-2021 **Revision date** 10-Nov-2021 **Revision Number** 31

1. Identification

Product identifier

Product Name **9-911-REV-B**

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended use Adhesives.

Restrictions on use No information available.

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
E-mail address Product_Regulatory@dymax.com

Emergency telephone number

24 Hour Emergency Phone Number Chemtrec 1-800-424-9300

2. Hazard(s) identification

Emergency Overview

Appearance translucent **Physical state** Liquid **Odor** Characteristic

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC)
Not applicable.

Label elements

Signal word Danger

Hazard statements

chanhvinh.com

Causes skin irritation.
Causes serious eye damage.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.



Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.

Precautionary Statements - Response
Get medical advice/attention if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Wash with plenty of soap and water.
Take off contaminated clothing and wash before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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.

Other information

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

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

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Trade secret	Weight-%
Acrylate Ester	Proprietary	*	25-39
Methacrylate Ester Monomer	Proprietary	*	25-39
Acrylic Acid	79-10-7	*	3-<5
tert-Butyl Perbenzoate	614-45-9	*	1-<3
Photoinitiator	Proprietary	*	1-<3
Maleic Acid	110-16-7	*	1-<3
Silane Coupling Agent	Proprietary	*	1-<3

chanhvinh.com

Photoinitator	Proprietary	*	<1
Epoxy Resin	Proprietary	*	<1

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

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

Ingestion
Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

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

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.

Eye contact
Get immediate medical advice/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.

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

Most important symptoms and effects, both acute and delayed
Burning sensation. Itching. Rashes. Hives.

Indication of any immediate medical attention and special treatment needed

Note to physicians
May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical or CO2.

Unsuitable extinguishing media
Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical
Product is or contains a sensitizer. May cause sensitization by skin contact.

Hazardous combustion products
Carbon dioxide (CO2). Carbon monoxide. Hydrocarbons. Nitrogen oxides (NOx).

Explosion data
Sensitivity to mechanical impact: None.
Sensitivity to static discharge: None.

chanhvinh.com

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

6. Accidental release measures

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.

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). Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections
See section 8 for more information. See section 13 for more information.

Section 7: Handling and storage, including how the chemical may be safely used

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

Storage Conditions
Keep container tightly closed in a dry and well-ventilated place. Protect from light.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Acrylic Acid	TWA: 2 ppm S*	(vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m^3 (vacated) S*	TWA: 2 ppm TWA: 6 mg/m^3

Appropriate engineering controls

chanhvinh.com

Engineering controls
Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

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.

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

Eye/face protection
Tight sealing safety goggles.

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.

Environmental exposure controls
Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	translucent
Color:	light yellow
Odor:	Characteristic
Odor threshold:	No information available

Property	Values	Remarks • Method
pH:	No data available	No information available
pH (as aqueous solution):	No data available	Not applicable
Melting point / freezing point:	No data available	No information available
Boiling point / boiling range:	No data available	
Flash point:	101 °C / 214 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate:	No data available	No information available
Flammability (solid, gas):	No data available	Not applicable
Flammability Limit in Air		
Upper flammability or explosive limits:	No data available	No information available
Lower flammability or explosive limits:	No data available	No information available
Vapor pressure:	No data available	No information available
Relative vapor density:	No data available	No information available
Relative density:	No data available	No information available
Water solubility:	partially soluble	No information available
Solubility(ies):	No data available	No information available
Partition coefficient:	No data available	No information available
Autoignition temperature:	No data available	No information available
Decomposition temperature:	No data available	No information available
Kinematic viscosity:	No data available	No information available

chanhvinh.com

Dynamic viscosity: 20,000 cP
Other information

Explosive properties: No information available
Oxidizing properties: No information available
Softening point: No information available
Molecular weight: No information available
VOC Content (%): No information available
Liquid 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.

Hazardous polymerization
None under normal processing.

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

Incompatible materials
Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products
None under normal use conditions.

11. Toxicological information

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. May be harmful if swallowed.

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document:
ATEmix (oral): 4,063.80 mg/kg
ATEmix (dermal): 5,769.00 mg/kg

chanhvinh.com

ATEmix (inhalation-dust/mist): 60.00 mg/l

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

Component Information:

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Acrylate Ester	= 4890 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
Methacrylate Ester Monomer	= 5050 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
Acrylic Acid	= 193 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 11.1 mg/L (Rat) 1 h = 3.6 mg/L (Rat) 4 h
tert-Butyl Perbenzoate	= 1012 mg/kg (Rat)	= 3817 mg/kg (Rabbit)	1.01 - 4.9 mg/L (Rat) 4 h
Maleic Acid	= 708 mg/kg (Rat)	= 1560 mg/kg (Rabbit)	> 720 mg/m³ (Rat) 1 h
Silane Coupling Agent	= 23.5 g/kg (Rat)	> 2000 mg/kg (Rat)	> 2.28 mg/L (Rat) 6 h
Photoinitator	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Epoxy Resin	= 11400 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

Redness. Burning. May cause blindness. Itching. Rashes. Hives. May cause redness and tearing of the eyes.

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

Skin corrosion/irritation: Classification based on data available for ingredients. Irritating to skin.

Serious eye damage/eye irritation: Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

Respiratory or skin sensitization: May cause sensitization by skin contact.

Germ cell mutagenicity: Not classified. Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

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

Chemical name	ACGIH	IARC	NTP	OSHA
Acrylic Acid	-	Group 3	-	-

Legend:
IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity: Not classified. Based on available data, the classification criteria are not met.

STOT - single exposure: May cause respiratory irritation. May cause drowsiness or dizziness.

STOT - repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Target organ effects: Respiratory system. Eyes. Skin.

Aspiration hazard: Not classified. Based on available data, the classification criteria are not met.

12. Ecological information

chanhvinh.com

Ecotoxicity
Harmful to aquatic life with long lasting effects.

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.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Acrylate Ester	ErC 50 = 2.7 mg/L 96 h (Pseudokirchneriella subcapitata)	LC50: =0.704mg/L (96h, Danio rerio)	-	EC 50 = 1.1 mg/L 48 h (Daphnia magna)
Methacrylate Ester Monomer	-	LC50: 213 - 242mg/L (96h, Pimephales promelas) LC50: =227mg/L (96h, Pimephales promelas)	-	EC50 > 380 mg/l 48 h (Daphnia magna)
Acrylic Acid	EC50: =0.04mg/L (72h, Desmodesmus subspicatus) EC50: =0.17mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =222mg/L (96h, Brachydanio rerio) NOEC: >= 10.1mg/L (45d, Oryzias latipes, OECD 210)	-	EC50: =95mg/L (48h, Daphnia magna) NOEC: =3.8mg/L (21d, Daphnia magna)
tert-Butyl Perbenzoate	-	LC50: =1.6mg/L (96h, Danio rerio)	-	-
Maleic Acid	-	LC50: =5mg/L (96h, Pimephales promelas)	-	EC50: 250 - 400mg/L (48h, Daphnia magna)
Silane Coupling Agent	EC50 > 536,00 mg/l 72 h (Scenedesmus subspicatus)	LC50: >100mg/L (96h Danio rerio)	-	EC50 > 876,00 mg/l 48 h (Daphnia magna)
Photoinitator	-	LC50: >90µg/L (96h, Danio rerio)	-	-

Persistence and degradability
No information available.

Bioaccumulation
There is no data for this product.

Component Information

Chemical name	Partition coefficient
Acrylate Ester	4.52
Methacrylate Ester Monomer	0.47
Acrylic Acid	0.46
Maleic Acid	0.32
Silane Coupling Agent	2.1
Photoinitator	5.8

Other adverse effects
No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products

chanhvinh.com

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

Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of contents/containers in accordance with local regulations.

US EPA Waste Number: U008

14. Transport information

IMDG Not regulated

IATA Not regulated

DOT Not regulated

15. Regulatory information

International Inventories

TSCA Complies
**Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements*

AIIC	Not Listed
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Not Listed
IECSC	Simplified Notification
KECL	Complies
PICCS	Not Listed
NZIoC	Not Listed
TCSI	Not Listed

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
AIICS - Australian Industrial Chemicals IntroductionScheme
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

US Federal Regulations

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
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate

chanhvinh.com

classifications.

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Maleic Acid	5000 lb	-	-	X

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	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Acrylic Acid	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Maleic Acid	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Acrylic Acid	X	X	X
tert-Butyl Perbenzoate	X	X	X
Maleic Acid	X	X	X
tert-Butyl hydroperoxide	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number
Not applicable

16. Other information

NFPA	**Health hazards** 3	**Flammability** 1	**Instability** 0	**Special hazards** -
HMIS	**Health hazards** 3 *	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA (time-weighted average)	STEL (Short Term Exposure Limit)
Ceiling: Maximum limit value	*: Skin designation

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)
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)
Japan GHS Classification

chanhvinh.com

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 10-Nov-2021

Revision Note The symbol (*) in the margin of this SDS indicates that this line has been revised

Disclaimer

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Dymax Corporation and its subsidiaries and affiliates (DYMAX). The information in this SDS relates only to the specific material designated herein. DYMAX assumes no legal responsibility for use of or reliance upon the information in this SDS.

End of Safety Data Sheet