



SAFETY DATA SHEET

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

984-LVF

Issuing Date 23-May-2024

Revision date 23-May-2024

Revision Number 32

1. Identification

Product identifier

Product Name 984-LVF

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended use Adhesives and/or sealants.

Restrictions on use Consumer use.

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 transparent | Physical state Liquid | Odor Characteristic |

Classification

| | |
|--|------------|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 1 |
| Skin sensitization | Category 1 |
| 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

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: If breathing is difficult, remove person to fresh air and keep 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-% |
|--------------------|-----------|--------------|----------|
| Isobornyl Acrylate | 5888-33-5 | * | 30 - 60 |

| | | | |
|-------------------------------|-------------|---|-----------|
| 2-Hydroxyethyl methacrylate | 868-77-9 | * | 1 - 5 |
| Acrylic Acid | 79-10-7 | * | 1 - 5 |
| Peroxide | Proprietary | * | 1 - 5 |
| Photoinitiator | Proprietary | * | 1 - 5 |
| Organofunctional Silane Ester | Proprietary | * | 0.5 - 1.5 |

*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

Rinse mouth. 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 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.

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**

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 |
|---------------|-----------|----------|-------|
|---------------|-----------|----------|-------|

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| | | | |
|--------------|------------------|--|--|
| 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

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

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection

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: | transparent |
| Color: | colorless fluorescing |
| Odor: | Characteristic |
| Odor threshold: | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--|--------------------|----------------------------------|
| pH | No data available | None known |
| Melting point / freezing point | No data available | None known |
| Boiling point / boiling range | No data available | None known |
| Flash point | 101 °C / 213.8 °F | Pensky-Martens Closed Cup (PMCC) |
| Evaporation rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapor pressure | No data available | None known |
| Relative vapor density | No data available | None known |
| Relative density | No data available | None known |
| Water solubility | Insoluble in water | |
| Solubility(ies) | No data available | None known |

| | | |
|---------------------------|----------------------|------------|
| Partition coefficient | No data available | None known |
| Autoignition temperature | 238 °C / 460.4 °F | None known |
| Decomposition temperature | | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available cP | |

Other information

| | |
|-----------------------|--------------------------|
| Explosive properties: | No information available |
| Oxidizing properties: | No information available |
| Softening point: | No information available |
| Molecular weight: | 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. Causes skin irritation.

Ingestion:

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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): 4,146.80 mg/kg

ATEmix (dermal): 6,726.40 mg/kg

ATEmix (inhalation-dust/mist): 32.70 mg/l

ATEmix (inhalation-vapor): 99,999.00 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 |
|-------------------------------|----------------------|-------------------------|---|
| Isobornyl Acrylate | = 4890 mg/kg (Rat) | > 3000 mg/kg (Rabbit) | - |
| 2-Hydroxyethyl methacrylate | = 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 |
| Peroxide | = 1012 mg/kg (Rat) | = 3817 mg/kg (Rabbit) | 1.01 - 4.9 mg/L (Rat) 4 h |
| Organofunctional Silane Ester | = 23.5 g/kg (Rat) | > 2000 mg/kg (Rat) | > 2.28 mg/L (Rat) 6 h |

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.

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**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 | Crustacea |
|-------------------------------|---|---|--|
| Isobornyl Acrylate | ErC 50 = 2.7 mg/L 96h (Pseudokirchneriella subcapitata) | LC50: =0.704mg/L 96h (Danio rerio) | EC 50 = 1.1 mg/L 48 h (Daphnia magna) |
| 2-Hydroxyethyl methacrylate | - | 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) |
| Peroxide | ErC50 = 0.8 mg/l 72h } par (Green Algae) | LC50: =1.6mg/L 96h (Danio rerio) | EC50 = 11 mg/l 48h (Daphnia magna) |
| Organofunctional Silane Ester | EC50 > 536,00 mg/l 72 h (Scenedesmus subspicatus) | LC50: >100mg/L (96h Danio rerio) | EC50 > 876,00 mg/l 48 h (Daphnia magna) |

Persistence and degradability

No information available.

Bioaccumulation**Component Information**

| Chemical name | Partition coefficient |
|-------------------------------|-----------------------|
| Isobornyl Acrylate | 4.52 |
| 2-Hydroxyethyl methacrylate | 0.42 |
| Acrylic Acid | 0.46 |
| Peroxide | 3 |
| Organofunctional Silane Ester | 2.1 |

Other adverse effects

No information available.

13. Disposal considerations

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

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.

14. Transport information

IMDG Not regulated

IATA Not regulated

DOT Not regulated

15. Regulatory information**International Inventories**

Commercial Activity Designation - Active

TSCA Complies

| | |
|----------------------|----------------|
| AIIC | Complies |
| DSL/NDSL | Listed on NDSL |
| EINECS/ELINCS | Complies |
| ENCS | Complies |
| IECSC | Complies |
| KECL | Complies |
| PICCS | Not Listed |
| NZIoC | Complies |
| TCSI | Complies |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

AIICS - Australian Industrial Chemicals Introduction Scheme

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 |

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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 classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

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 |

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 1 - 5 % | X | X | X |
| Peroxide 1 - 5 % | X | X | X |
| tert-Butyl hydroperoxide <0.1 % | X | X | X |
| Antioxidant <0.1 % | 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)

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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
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

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

Disclaimer

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End of Safety Data Sheet