

SAFETY DATA SHEET

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

401

Issuing Date 10-Nov-2021

Revision date 10-Nov-2021

Revision Number 30

1. Identification

Product identifier

Product Name **401**

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 transparent	Physical state Liquid	Odor Characteristic
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Classification

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

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements

Signal word Danger

Hazard statements

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.
May cause respiratory irritation.



Precautionary Statements - Prevention

Do not breathe dusts or mists.
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
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.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Precautionary Statements - Storage

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

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.

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	*	10-24
Acrylic Acid	79-10-7	*	5-9
Silane Coupling Agent	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

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

Inhalation

Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention.

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention. May cause an allergic skin reaction.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/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. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. 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**

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. 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

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. Product is or contains a sensitizer. May cause sensitization by skin contact.

Hazardous combustion products

Carbon dioxide (CO₂). Carbon monoxide. Hydrocarbons. Nitrogen oxides (NO_x).

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

Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. 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

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. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Hand protection

Wear suitable gloves. Nitrile rubber, Butyl rubber.

Eye/face protection

Tight sealing safety goggles. Face protection shield.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

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

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
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	No information 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:	438 °C / 820.4 °F	No information available
Decomposition temperature:	No data available	No information available
Kinematic viscosity:	No data available	No information available

Dynamic viscosity: 70 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

Exposure to air or moisture over prolonged periods.

Incompatible materials

Acids. Bases. Oxidizing agent.

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. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract.

Eye contact:

Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.

Skin contact:

Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion:

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

Acute toxicity

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

ATEmix (oral): 3,903.00 mg/kg
 ATEmix (dermal): 5,147.60 mg/kg
 ATEmix (inhalation-dust/mist): 43.00 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
Silane Coupling Agent	= 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. Coughing and/ or wheezing. Itching. Rashes. Hives.

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. Causes burns.

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

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

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**

Very toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity

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

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)
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)

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
Silane Coupling Agent	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.

US EPA Waste Number: U008

14. Transport information

IMDG

UN number or ID number: UN 1760
 UN proper shipping name: CORROSIVE LIQUID, N.O.S. (Acrylic acid, stabilized)
 Transport hazard class(es): 8
 Packing group: II
 EmS-No: F-A, S-B
 Marine pollutant: P

IATA

UN number or ID number: UN 1760
 UN proper shipping name: CORROSIVE LIQUID, N.O.S. (Acrylic acid, stabilized)
 Transport hazard class(es): 8
 Packing group: II

DOT

UN number: UN 1760
 Proper shipping name: CORROSIVE LIQUID, N.O.S. (Acrylic acid, stabilized)
 Transport hazard class(es): 8
 Packing group: II

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/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
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 Introduction Scheme
DSL/NDL - 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.

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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 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

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Acrylic Acid	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
 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