SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: Dynasylan® MEMO

Chemical name:
3-Trimethoxysilylpropyl methacrylate

Other means of identification
CAS Number: 2530-85-0

Recommended restrictions
Recommended use: For industrial use Coupling agent Crosslinking agents Surface modifier
Restrictions on use: Not determined.

Manufacturer/Importer/Distributor Information

Company Name	:	Evonik Corporation 2 Turner Place Piscataway, NJ 08854 USA
Telephone	:	+1 732 981 5000
E-mail	:	product-regulatory-services@evonik.com

Emergency telephone number:

24-Hour Health Emergency	:	+1 800 424 9300 (CHEMTREC - US & CANADA) 800 681 9531 (CHEMTREC MEXICO) +1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazard Classification

Not classified

Label Elements

Hazard Symbol:	No symbol
Signal Word:	No signal word.
Hazard Statement:	Not applicable
Precautionary Statements	
Hazard(s) not otherwise classified (HNOC):	None.

3. Composition/information on ingredients

Chemical name:
3-Trimethoxysilylpropyl methacrylate

Substances

Chemical Identity	CAS number	Content in percent (%)*
3-Trimethoxysilylpropyl methacrylate	2530-85-0	>=98%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

Inhalation: If aerosol or mists are inhaled, take affected persons out into the fresh air.In case of persistent discomfort or other symptoms, consult a physician immediately.

Skin Contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Obtain medical attention immediately if symptoms occur. Wash clothing before reuse.

Eye contact: Rinse thoroughly with plenty of water keeping eyelid open. In case of persistent discomfort: Consult an ophthalmologist.

Ingestion: Have the mouth rinsed with water. After absorbing large amounts of substance / In case of discomfort: Supply with medical care.

Personal Protection for First-aid Responders: As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

Most important symptoms/effects, acute and delayed

Symptoms: None known.

Hazards: None known.

Indication of immediate medical attention and special treatment needed

Treatment: After absorbing large amounts of substance: administration of activated charcoal. Acceleration of gastrointestinal passage

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray. foam Carbon Dioxide. dry powder

Unsuitable extinguishing media: High volume water jet

Specific hazards arising from the chemical: Standard procedure for chemical fires.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters:	As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment.
Methods and material for containment and cleaning up:	Soak up with absorbent material, e.g., sand, silica gel, acid binder, universal binder or sawdust. Place in a marked, sealable container and dispose of in accordance with existing federal, provincial, state and local regulations.
Environmental Precautions:	Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	Application, processing: Provide good ventilation or extraction.
Safe handling advice:	Provide good ventilation or extraction.
Contact avoidance measures:	No data available.
Hygiene measures:	Avoid contact with eyes, skin, and clothing. Do not inhale vapors / aerosol. Remove contaminated or saturated clothing.

Storage

Safe storage conditions:	Keep containers tightly closed in a cool, well-ventilated place. Protect from heat and exposure to direct sunlight Protect from moisture.Normal measures for preventive fire protection.
Safe packaging materials:	No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Appropriate Engineering Controls	Application, processing: Provide good ventilation or extraction.

Individual protection measures, such as personal protective equipment

Eye/face protection:	Use chemical splash goggles or face shield.

Skin Protection

Hand Protection:	Material: Butyl rubber. Break-through time: >= 480 min Material: Fluorinated rubber (Viton) Break-through time: >= 120 min Additional Information: The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use., Selection of protective gloves to meet the requirements of specific workplaces., Suitability for specific workplaces should be clarified with protective glove manufacturers., Use impermeable gloves.
Skin and Body Protection:	A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.
Respiratory Protection:	A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.
Hygiene measures:	Avoid contact with eyes, skin, and clothing. Do not inhale vapors / aerosol. Remove contaminated or saturated clothing.

9. Physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	colourless to yellowish
Odor:	slightly aromatic
Odor Threshold:	not determined
pH:	not determined
Freezing point:	< -20 °C
Boiling Point:	255 °C (1,013 hPa) (DIN 51 356)
Flash Point:	110 °C (DIN EN ISO 2719 (Pensky-Martens, Closed Cup))
Evaporation Rate:	not determined
Flammability (solid, gas):	No data available.
Explosive limit - upper (%):	5.4 %(V)
Explosive limit - lower (%):	0.9 %(V)
Vapor pressure:	< 0.1 hPa (20 °C)
Vapor density (air=1):	No data available.
Density:	1.04 g/cm3 (20 °C) (DIN 51757)
Relative density:	No data available.
Solubility(ies)	
Solubility in Water:	not miscible decomposition by hydrolysis
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	2.1 (OECD TG 107)
Self Ignition Temperature:	275 °C (EC Method A.15)
Decomposition Temperature:	not determined
Kinematic viscosity:	No data available.

Dynamic viscosity:	2.8 mPa.s (20 °C, DIN 53 015)

Other information

Explosive properties:	not explosive
Oxidizing properties:	No data available.
Minimum ignition temperature:	not determined

10. Stability and reactivity

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical Stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Exothermic reaction with: peroxides
Conditions to avoid:	Keep away from direct sunlight. Protect from moisture.
Incompatible Materials:	Peroxides. Water.
Hazardous Decomposition Products:	Methanol in case of hydrolysis. Alcohol formed by hydrolysis lowers the flash point of the product.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product:	LD 50 (Rat): > 2,000 mg/kg

Dermal

Product:	LC 50 (Rat): > 2,000 mg/kg

Inhalation

Product:	LC0 (Rat): > 2.28 mg/l maximum concentration in the test: no animals died., Aerosols

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation
Product: Not irritating OECD Test Guideline 404 (Rabbit): Not irritating

Serious Eye Damage/Eye Irritation
Product: Not irritating Rabbit: Not irritating

Respiratory or Skin Sensitization
Product: Maximization test, OECD Test Guideline 406 (Guinea Pig): Not a skin sensitizer. tested substance: Structurally similar substance

Carcinogenicity
Product: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

US. National Toxicology Program (NTP) Report on Carcinogens:

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Germ Cell Mutagenicity

In vitro
Product: Ames test (OECD TG 471): negative
Chromosomal aberration (OECD TG 473): positive
Genetic mutation in mammal cells (OECD TG 476): negative

In vivo
Product: Chromosomal aberration (OECD TG 474) intraperitoneal (i.p.) (Mouse): negative

Reproductive toxicity
Product: No data available.

Components:

3-Trimethoxysilylpropyl methacrylate	Not classified

Specific Target Organ Toxicity - Single Exposure
Product: Not classified

Specific Target Organ Toxicity - Repeated Exposure
Product: Not classified

Aspiration Hazard
Product: No evidence of aspiration toxicity

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: LC 50 (Brachydanio rerio, 96 h): > 1,042 mg/l
LC0 (Brachydanio rerio, 96 h): 1,042 mg/l

Aquatic Invertebrates
Product: EC 50 (Daphnia magna, 48 h): > 876 mg/l

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: EC 50 (Desmodesmus subspicatus (green algae), 72 h): > 536 mg/l
NOEC (Desmodesmus subspicatus (green algae), 72 h): 322 mg/l

Persistence and Degradability

Biodegradation
Product: 74 % (28 d, Directive 92/69/EEC C.4-D)

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: not bioaccumulative

Partition Coefficient n-octanol / water (log Kow)
Product: Log Kow: 2.1 21 °C (OECD TG 107)

Mobility in soil: Adsorption on the floor: low.

Other adverse effects: The data we have at our disposal do not necessitate identification concerning environmental hazard.

13. Disposal considerations

Disposal methods: With respect to local regulations, e.g. dispose of to suitable waste incineration plant. Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

Contaminated Packaging: Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations. Incorrect disposal or reuse of this container is illegal and can be dangerous. Other countries: observe the national regulations.

14. Transport information

Domestic regulation

49 CFR

Not regulated as a dangerous good

Remarks : Not dangerous according to transport regulations., Protect against heat. As cool as possible. Minimum distance to heat sources under deck (e.g. heatable fuel tanks): 1 container position.

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
methanol	5000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Not classified

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

WARNING: This product can expose you to chemicals including, methanol, which is [are] known to the State of California to cause birth defects or other reproductive harm.

For more information go to www.P65Warnings.ca.gov.

US. New Jersey Worker and Community Right-to-Know Act

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

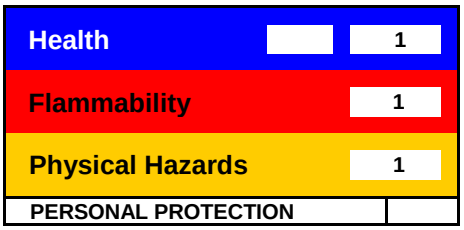
No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

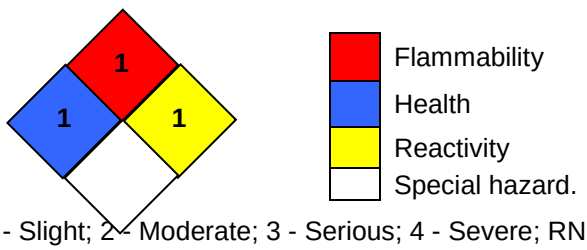
16.Other information, including date of preparation or last revision

HMIS Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date: 03/21/2019

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Further Information:	No data available.
Revision Information:	Changes since the last version are highlighted in the margin. This version replaces all previous versions.
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