

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	1 / 12

1. Identification**1.1. Product identifier**

Trade name	Dynasylan® OCTEO
Chemical Name	Triethoxyoctylsilane
CAS-No.	2943-75-1

1.2. Recommended use of the chemical and restrictions on use

Relevant applications identified	For industrial useFor the surface treatment of organic/inorganic pigments as well as minerals, inorganic oxides and hydroxides which are used in cosmetic formulations.
Function	Surface modifier Raw material

1.3. Details of the supplier of the safety data sheet

Company	Evonik Corporation USA 299 Jefferson Road Parsippany, NJ 07054-0677 USA
Telephone	973-929-8000
Telefax	973-929-8040
Email address	Product-Regulatory-Services@Evonik.com

1.4. 24 HOUR EMERGENCY TELEPHONE NUMBERS:

CHEMTREC - US & CANADA:	800-424-9300
CHEMTREC MEXICO:	01-800-681-9531
CHEMTREC INTERNATIONAL:	+1 703-527-3887 (collect calls accepted)
Product Regulatory Services	: 973-929-8060

2. Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Regulation 29CFR 1910.1200

Skin irritation	Category 2	H315
Flammable liquids	Category 4	H227

2.2. Label elements

Statutory basis	Classification according to Regulation 29CFR 1910.1200
Symbol(s)	



SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	2 / 12

Signal word	Warning
Hazard statement	H227 - Combustible liquid. H315 - Causes skin irritation.
Precautionary statement Prevention	P210 - Keep away from open flames/hot surfaces. - No smoking. P264 - Wash skin thoroughly after handling. P280 - Wear protective gloves/ eye protection/ face protection.
Precautionary statement Reaction	P302 + P352 - IF ON SKIN: Wash with plenty of water/ soap. P332 + P313 - If skin irritation occurs: Get medical advice/ attention. P362 + P364 - Take off contaminated clothing and wash it before reuse. P370 + P378 - In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
Precautionary statement Storage	P403 + P235 - Store in a well-ventilated place. Keep cool.
Precautionary statement Disposal	P501 - Dispose of contents/ container to an approved waste disposal plant.
Contains REST	
The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 2 %	

2.3. Other hazards

None known.

3. Composition/information on ingredients

• Triethoxyoctylsilane	>= 99%
CAS-No. 2943-75-1	
Skin irritation	Category 2

Other information

This material is classified as hazardous under OSHA regulations.

4. First aid measures**4.1. Description of first aid measures****General advice**

Remove contaminated or saturated clothing immediately and dispose of safely.

Inhalation

If aerosol or mists are inhaled, take affected persons out into the fresh air. Possible discomforts include severe irritation of mucus lining (nose, throat, eyes), cough, sneezing and flow of tears. In case of persistent discomfort, obtain medical attention 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

In case of contact, immediately flush eyes with plenty of water, or if necessary, with eye rinsing solution. In case of persistent discomfort, consult an ophthalmologist.

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	3 / 12

Ingestion

If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed**Symptoms**

None known

4.3. Indication of any immediate medical attention and special treatment needed

If required, therapy of irritative effect.

After absorbing large amounts of substance:
administration of activated charcoal.

Acceleration of gastrointestinal passage

5. Fire-fighting measures**5.1. Extinguishing media**

Suitable extinguishing media: water spray, foam, Carbon dioxide (CO₂), dry powder

Unsuitable extinguishing media: High volume water jet

5.2. Special hazards arising from the substance or mixture

Standard procedure for chemical fires.

5.3. Advice for firefighters

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.

As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment.

6.2. Environmental precautions

Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

6.3. Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. Handling and storage**7.1. Precautions for safe handling**

Provide good ventilation or extraction.

7.2. Conditions for safe storage, including any incompatibilities**Advice on protection against fire and explosion**

Normal measures for preventive fire protection.

Storage

Keep containers tightly closed in a cool, well-ventilated place. Protect from moisture.

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	4 / 12

8. Exposure controls/personal protection**8.1. Control parameters**

• Ethanol		
CAS-No.	64-17-5	
Control parameters	1000 ppm 1900 mg/m ³	Permissible exposure limit:(OSHA Z1)
Control parameters	1000 ppm 1900 mg/m ³	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):(US CA OEL)
Control parameters	1000 ppm	Short Term Exposure Limit (STEL):(ACGIH)
Control parameters	1000 ppm 1900 mg/m ³	Time Weighted Average (TWA):(TN OEL)

8.2. Exposure controls**Engineering measures**

Provide adequate ventilation.

Personal protective equipment**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.

Hand protection

Use impermeable gloves.

Eye protection

Use chemical splash goggles or face shield.

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 (29CFR 1910.132) be conducted before using this product.

Hygiene measures

Avoid contact with skin, eyes and clothing. Do not inhale vapors or aerosols. Do not eat, drink, or smoke when using the product. Remove contaminated or saturated clothing.

9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

physical state	liquid (20 °C) (1013 hPa)
Colour	colorless
Form	liquid
Odour	characteristic
Odour Threshold	not determined
pH	not determined
Melting point/range	-75 °C
	Method: OECD TG 102
Boiling point/range	ca. 265 °C (1013 hPa)

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	5 / 12

	Method:	DIN 51 751
Flash point	> 93 °C	
	Method:	DIN EN ISO 2719 (Pensky-Martens, Closed Cup)
Evaporation rate	not determined	
Lower explosion limit	0.5 %(V)	(200 °C)
	Method:	DIN EN 1839
Upper explosion limit	> 13.5 %(V)	(200 °C)
	Method:	DIN EN 1839
Vapour pressure	< 1 Pa	(20 °C)
Vapour density	no data available	
Density	ca. 0.88 g/cm ³	(20 °C)
	Method:	DIN 51757
Water solubility	Not miscible.	
	< 0.13 g/l	(20 °C)
	Method:	OECD Test Guideline 105
	0.79 g/l	(20 °C)
	Method:	QSAR
	59000 g/l	(20 °C)
	Method:	QSAR
Partition coefficient: n-octanol/water	log Pow:	6.41
	Method:	OECD TG 117, measured
Autoignition temperature	Not determined.	
Thermal decomposition	not determined	
Viscosity, dynamic	2 mPa.s	(20 °C)
	Method:	DIN 53 015

9.2. Other information

Explosiveness not explosive

10. Stability and reactivity**10.1. Reactivity**

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	6 / 12

Possibility of hazardous reactions No dangerous reactions known.

10.4. Conditions to avoid

In the presence of oxygen and heat, the ethanol forming during the reaction may produce acetaldehyde.

Material may form acetaldehyde when heated with inorganic pigments in the presence of air.

10.5. Incompatible materials

Water

10.6. Hazardous decomposition products

Ethanol in case of hydrolysis

11. Toxicological information**11.1. Information on toxicological effects**

Acute oral toxicity	LD50 rat: > 5110 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	LC0 Rat: 22 ppm / 4 h / vapour Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity maximum concentration in the test: no animals died.
Acute dermal toxicity	LD50 Rabbit: 6730 mg/kg Method: OECD Test Guideline 402
Skin irritation	Rabbit irritating Method: OECD Test Guideline 404
Eye irritation	Rabbit not irritating Method: OECD Test Guideline 405
Sensitization	maximization test Guinea pig: No sensitizing effects. Method: OECD Test Guideline 406 Test substance: Structurally similar substance
Repeated dose toxicity	Oral Rat / 28-day NOAEL: 300 mg/kg Method: OECD TG 422
Assessment of STOT single exposure	Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.
Assessment of STOT repeat exposure	Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Risk of aspiration toxicity	No evidence of aspiration toxicity
Genotoxicity in vitro	Ames test Salmonella typhimurium negative

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	7 / 12

Method: OECD TG 471

chromosomal aberration Chinese hamster (CHO K1 -cells)
negative

Method: OECD TG 473

Genetic mutation in mammal cells TK +/- mouse lymphoma cell (L5178Y)
negative

Method: OECD TG 476

No evidence of mutagenic effects have been reported.

Carcinogenicity

No data available

carcinogenicity assessment

Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA.

Toxicity to reproduction

Screening for reproductive/developmental toxicity Oral Rat

Number of exposures: daily

NOAEL (No Observed Adverse Effect Level) of

parents:

Method: OECD TG 422

Screening for reproductive/developmental toxicity Oral Rat

Number of exposures: daily

NOAEL F1: 300 mg/kg

Method: OECD TG 422

12. Ecological information

12.1. Toxicity

Toxicity to fish

In the range of water solubility not toxic under test conditions.

Toxicity in aquatic invertebrates

In the range of water solubility not toxic under test conditions.

Toxicity to algae

In the range of water solubility not toxic under test conditions.

Toxicity to bacteria

EC50 local activated sludge: > 1000 mg/l / 3 h

Method: OECD TG 209

NOEC local activated sludge: >= 1000 mg/l / 3 h

Method: OECD TG 209

12.2. Persistence and degradability

Biodegradability

Exposure time: 28 d

Result: 31.5 % Not readily biodegradable.

Method: OECD TG 301 D

12.3. Bioaccumulative potential

Bioaccumulation

not bioaccumulative

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	8 / 12

12.4. Mobility in soil

Mobility Adsorption on the floor: low.

12.5. Other adverse effects

Further Information The data we have at our disposal do not necessitate identification concerning environmental hazard.

13. Disposal considerations**13.1. Waste treatment methods****Product**

Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

Uncleaned packaging

Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities.

If there is product residue in the emptied container, follow directions for handling on the container's label.

Incorrect disposal or reuse of this container is illegal and can be dangerous.

Other countries: observe the national regulations.

14. Transport information**Not dangerous according to transport regulations.**

- 14.1. UN number: --
- 14.2. UN proper shipping name: --
- 14.3. Transport hazard class(es): --
- 14.4. Packing group: --
- 14.5. Environmental hazards (Marine pollutant): --
- 14.6. Special precautions for user: Yes
- Not dangerous according to transport regulations.

15. Regulatory information**US Federal Regulations****OSHA**

If listed below, chemical specific standards apply to the product or components:

- None listed

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	9 / 12

Clean Air Act Section (112)

If listed below, components present at or above the de minimus level are hazardous air pollutants:

- None listed

CERCLA Reportable Quantities

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

- None listed

SARA Title III Section 311/312 Hazard Categories

The product meets the criteria only for the listed hazard classes:

- Acute Health Hazard

SARA Title III Section 313 Reportable Substances

If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

- None listed

Toxic Substances Control Act (TSCA)

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None listed

State Regulations

The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in section 2 and 15 of this MSDS.

California Proposition 65

A warning under the California Drinking Water Act is required only if listed below:

- None listed

An employer using HMIS/NFPA labeling must through training ensure that its employees are fully aware of the hazards of the chemicals used.

HMIS Ratings

Health :	2
Flammability :	1
Physical Hazard :	1

NFPA Ratings

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	10 / 12

Health :	2
Flammability :	1
Reactivity :	1

16. Other information**Further information**

Revision date 06/25/2015

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	11 / 12

Legend

ACC	American Chemistry Council
ACGIH	American Conference of Governmental Industrial Hygienists
ACS	Advisory Committee on Sustainability
ADI	Acceptable Daily Intake
ASTM	American Society for Testing and Materials
ATP	Adaptation to Technical Progress
BCF	Bioconcentration factor
BOD	Biochemical oxygen demand
c.c.	closed cup
CAO	Cargo Aircraft Only
Carc	Carcinogen
CAS	Chemical Abstract Services
CDN	Canada
CEPA	Canadian Environmental Protection Act
CERCLA	Comprehensive Environmental Response – Compensation and Liability Act
CFR	Code of Federal Regulations
CMR	carcinogenic-mutagenic-toxic for reproduction
COD	Chemical oxygen demand
DIN	German Institute for Standardization
DMEL	Derived minimum effect level
DNEL	Derived no effect level
DOT	Department of Transportation
EC50	half maximal effective concentration
EPA	Environmental Protection Agency
ErC50	Reduction of Growth Rate
ERG	Emergency Response Guide Book
FDA	Food and Drug Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
GLP	Good Laboratory Practice
GMO	Genetic Modified Organism
HCS	Hazard Communication Standard
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO-TI	International Civil Aviation Organization- Technical Instructions
ICCA	International Council of Chemical Association
ID	Identification number
IMDG	International Maritime Dangerous Goods
IUPAC	International Union of Pure and Applied Chemistry
ISO	International Organization For Standardization
LC50	50 % Lethal Concentration
LD50	50 % Lethal Dose
L(EC50)	LC50 or EC50
LOAEL	Low est observed adverse effect level
LOEL	Low est observed effect level
MARPOL	International Convention for the Prevention of Pollution from Ships
NFPA	National Fire Protection Association
NOAEL	No observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
o. c.	open cup
OECD	Organisation for Economic Cooperation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PBT	Persistent, bioaccumulative, toxic
PEC	Predicted effect concentration
PNEC	Predicted no effect concentration
RQ	Reportable Quantity
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
UN	United Nations
vPvB	very persistent, very bioaccumulative

SAFETY DATA SHEET**Dynasylan® OCTEO**

Material no.		Version	2.1 / US
Specification	120882	Revision date	06/25/2015
Order Number		Print Date	06/25/2015
		Page	12 / 12

voc volatile organic compounds
WHMIS Workplace Hazardous Materials Information System
WHO World Health Organization