SAFETY DATA SHEET

1. Identification

Product identifier: Dynasylan® SIVO 210

Other means of identification

Recommended use: For industrial use
Coupling agent
Crosslinking agents
Surface modifier

Recommended restrictions: Not determined.

Manufacturer/Importer/Distributor Information

Company Name : Evonik Operations GmbH
Rellinghauser Str. 1-11
45128 Essen
Germany

Telephone : +49 6181 59 4787

E-mail : sds-hu@evonik.com

Emergency telephone number:

24-Hour Health Emergency : +49 7623 919191

2. Hazard(s) identification

Classification according to GHS

Health Hazards

Acute toxicity (Oral)	Category 5
Skin Corrosion/Irritation	Category 1B
Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement: May be harmful if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

Precautionary Statements

Prevention: Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/ physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see on this label). IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards: No data available.

3. Composition/information on ingredients

Mixtures

General information: Silane preparation

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
3-Aminopropyltriethoxysilane	No data available.	919-30-2	10 - 55%
Bis(triethoxysilylpropyl)amine	No data available.	13497-18-2	10 - 55%
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.	1184179-50-7	<10%

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

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General information:	Immediately remove contaminated clothing.
Inhalation:	If aerosol or mists are formed: Possible discomfort: severe irritation of mucous lining (nose, throat, eyes), cough, sneezing, flow of tears Move to fresh air. If breathing difficulties occur: Keep patient half sitting with upper body raised. Get medical attention immediately.
Skin Contact:	Wash off immediately with plenty of water. Seek medical advice.
Eye contact:	With eye held open, thoroughly rinse immediately with plenty of water for at least 10 minutes. Continue rinsing process with eye rinsing solution. Protect unharmed eye. Call ambulance. (Cue: caustic burn of the eyes) Immediate further treatment in ophthalmic hospital/ ophthalmologist. Continue rinsing eye until arrival at ophthalmic hospital.
Ingestion:	Do NOT induce vomiting. Only when patient fully conscious: Have the mouth rinsed with water. Have patient drink plenty of water in small sips. Notify ambulance immediately (keyword: chemical burn).
Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both acute and delayed

Symptoms:	None known.
Hazards:	None known.

Indication of immediate medical attention and special treatment needed

Treatment:	Therapy as for chemical burn. If substance has been swallowed: Early endoscopy in order to assess mucosa lesions in the oesophagus and stomach which may appear. If necessary, suck away leftover substance. Allergic reactions cannot be excluded. Treatment of allergic reaction if necessary.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media:	High volume water jet.

Special hazards arising from the substance or mixture:	Hazardous fumes in fires, specific to the product: Nitrogen Oxides

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:	In case of fire: wear a self contained respiratory apparatus

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Do not breathe in vapours or aerosols.
Accidental release measures:	No data available.
Methods and material for containment and cleaning up:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Fill into marked, sealable containers. To be disposed of in compliance with existing regulations.
Environmental Precautions:	Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.

7. Handling and storage

Handling

Technical measures:	No data available.
Local/Total ventilation:	Application, processing: ensure sufficient ventilation.
Safe handling advice:	Application, processing: Provide good ventilation or extraction.
Contact avoidance measures:	No data available.

Storage

Safe storage conditions:	Keep away from sources of ignition - No smoking.Keep containers tightly closed in a cool, well-ventilated place. Protect from moisture.
Safe packaging materials:	No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Observe national threshold limit values.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls Application, processing: ensure sufficient ventilation.

Individual protection measures, such as personal protective equipment

General information: No data available.

Eye/face protection: close-fitting protective goggles (e.g. closed goggles)

Hand Protection: Material: Butyl rubber.
Break-through time: >= 480 min
Glove thickness: 0,5 mm
Material: Fluorinated rubber (Viton)
Break-through time: >= 480 min
Glove thickness: 0,4 mm
Additional Information: Selection of protective gloves to meet the requirements of specific workplaces., The suitability for a specific workplace should be discussed with the producers of the protective gloves., The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).

Other: When handling larger quantities: chemical protective suit, disposable protective suit.

Respiratory Protection: In case of dusts/vapours/aerosols being formed or if the limit values like TLV are exceeded: use respiratory equipment with suitable filter (filter type ABEK) or wear a self contained respiratory apparatus Use only respiratory protection equipment with CE-symbol including four digit test number. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used. Note time limit for wearing respiratory protective equipment.

Hygiene measures: When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	colorless to yellowish
Odor:	amine-like
Odor Threshold:	No data available.
Freezing point:	-45 °C/-49 °F Method: ISO 3841
Boiling Point:	240 °C/464 °F 1.013 hPa Method: ASTM D-1120
Flammability:	No data available.

Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Flash Point:	> 95 °C/> 203 °F Method: DIN EN ISO 2719
Auto-ignition temperature:	250 °C/482 °F Method: DIN 51794
Decomposition Temperature:	No data available.
pH:	11,3 500 g/l 50 % 20 °C/68 °F

Viscosity

Dynamic viscosity:	4,00 - 40,00 mPa.s 20 °C/68 °F Method: DIN 53015
Kinematic viscosity:	No data available.
Flow Time:	No data available.

Solubility(ies)

Solubility in Water:	not miscible decomposition by hydrolysis
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	No data available.
Relative density:	No data available.
Density:	Approximate 0,97 g/cm3 20 °C/68 °F Method: DIN 51757

Bulk density:	No data available.
Relative vapor density:	No data available.

Other information

Peroxides:	Not applicable

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: acids
Conditions to avoid:	Protect from moisture.
Incompatible Materials:	Acids. Water.
Hazardous Decomposition Products:	Ethanol 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:	Information on effects are given below.
Skin Contact:	Information on effects are given below.
Eye contact:	Information on effects are given below.
Ingestion:	Information on effects are given below.

Acute toxicity (list all possible routes of exposure)

Oral

Product:	ATEmix, 2.296 mg/kg
Components:	
3-Aminopropyltriethoxysilane	LD 50, Rat, Female, 1.490 mg/kg, EPA Method
Bis(triethoxysilylpropyl)amine	LD 50, Rat, Male, 3.657 mg/kg, OECD 401 LD 50, Rat, Female, Male, 4.580 mg/kg, OECD 401 LD 50, Rat, Female, 6.106 mg/kg, OECD 401
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	Not toxic after single exposure, No data available.

Dermal

Product:	Not classified for acute toxicity based on available data.
Components:	

3-Aminopropyltriethoxysilane	Not toxic after single exposure, No classification
Bis(triethoxysilylpropyl)amine	Not toxic after single exposure, No classification
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	Not toxic after single exposure, No data available.

Inhalation

Product:	Not classified for acute toxicity based on available data.
Components:	
3-Aminopropyltriethoxysilane	LC 50, Rat, Female, 4 h, > 20 mg/l, Vapour, OECD 403 LC 50, Rat, Female, 6 h, > 144 mg/l, Vapour, OECD 403 Dust and mist, Not toxic after single exposure, Not applicable
Bis(triethoxysilylpropyl)amine	Dust and mist, Not toxic after single exposure, No data available. Vapour, Not toxic after single exposure, No data available.
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	Dust and mist, Not toxic after single exposure, No data available. Vapour, Not toxic after single exposure, No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	NOAEL Rat, Female, Male, Oral, 90 day, daily, 200 mg/kg
Bis(triethoxysilylpropyl)amine	NOAEL Rat, Female, Male, Oral, 28 day, 7 days a week, 150 mg/kg
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Skin Corrosion/Irritation

Product:	Corrosive.
Components:	
3-Aminopropyltriethoxysilane	Corrosive., OECD 404, Rabbit, < 1 h
Bis(triethoxysilylpropyl)amine	Irritating., OECD 404, Rabbit
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	Irritating.

Serious Eye Damage/Eye Irritation

Product:	Risk of serious damage to eyes.
Components:	
3-Aminopropyltriethoxysilane	Risk of serious damage to eyes., OECD 405, Rabbit
Bis(triethoxysilylpropyl)amine	Irritating., OECD 405, Rabbit

1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	Irritating.

Respiratory or Skin Sensitization

Product:	May cause sensitization by skin contact.
Components:	
3-Aminopropyltriethoxysilane	Buehler Test, OECD 406, Guinea Pig, May cause sensitization by skin contact.
Bis(triethoxysilylpropyl)amine	Maximization Test, OECD 406, Guinea Pig, Skin sensitizer
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Carcinogenicity

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	No evidence that cancer may be caused.
Bis(triethoxysilylpropyl)amine	No evidence that cancer may be caused.
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Germ Cell Mutagenicity
In vitro

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	Ames test, OECD 471: , negative gene mutation test, OECD 476: , negative Chromosomal aberration, OECD 473: , negative
Bis(triethoxysilylpropyl)amine	Ames test, OECD 471: , negative Chromosomal aberration, OECD 473: , negative gene mutation test, OECD 476: , negative
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

In vivo

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	Micronucleus test, OECD 474, Intraperitoneal, Mouse, Female, Male, negative
Bis(triethoxysilylpropyl)amine	No data available.
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Reproductive toxicity

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	no evidence of reproductiontoxic properties
Bis(triethoxysilylpropyl)amine	no evidence of reproductiontoxic properties
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	No data available.
Bis(triethoxysilylpropyl)amine	No data available.
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	No data available.
Bis(triethoxysilylpropyl)amine	No data available.
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Aspiration Hazard

Product:	No evidence of aspiration toxicity
Components:	
3-Aminopropyltriethoxysilane	Not classified
Bis(triethoxysilylpropyl)amine	Not classified
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	Not classified

Information on health hazards

Other hazards

Product:	No toxicological tests are available on the product.;

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	LC 0, Brachydanio rerio (zebrafish), 96 h, > 934 mg/l OECD 203
Bis(triethoxysilylpropyl)amine	LC 50, Scophtalmus maximus (turbot), 96 h, > 200 mg/l OECD 203
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	EC 50, Daphnia magna, 48 h, 331 mg/l OECD 202
Bis(triethoxysilylpropyl)amine	EC 50, Acartia tonsa, 48 h, > 151,9 mg/l ISO 14669, salt water
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	EC 50 (Desmodesmus subspicatus (green algae), 72 h): > 1.000 mg/l (OECD 201)
Bis(triethoxysilylpropyl)amine	EC 50 (Phaeodactylum tricornutum, 72 h): 118 mg/l (ISO 10253)
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	EC 10, Pseudomonas putida, 5,75 h, 13 mg/l, DIN EN ISO 10712
Bis(triethoxysilylpropyl)amine	EC 50, local activated sludge, 3 h, Approximate, 1.000 mg/l, OECD 209 NOEC, local activated sludge, 3 h, 220 mg/l, OECD 209
1-(3-(triethoxysilyl)propyl)-2,2-	No data available.

diethoxy-1-aza-2-silacyclopentane

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	No data available.
Bis(triethoxysilylpropyl)amine	No data available.
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	No data available.
Bis(triethoxysilylpropyl)amine	No data available.
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	NOEC (Desmodesmus subspicatus (green algae), 72 h): 1,3 mg/l (OECD 201)
Bis(triethoxysilylpropyl)amine	NOEC (Phaeodactylum tricornutum, 72 h): 58,5 mg/l (ISO 10253)
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	EC 10, Pseudomonas putida, 5,75 h, 13 mg/l, DIN EN ISO 10712
Bis(triethoxysilylpropyl)amine	EC 50, local activated sludge, 3 h, Approximate, 1.000 mg/l, OECD 209 NOEC, local activated sludge, 3 h, 220 mg/l, OECD 209
1-(3-(triethoxysilyl)propyl)-2,2-	No data available.

diethoxy-1-aza-2-silacyclopentane

Persistence and Degradability

Biodegradation

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	67 %, 28 d, (DOC; Die Away test - 79/831/EEC part C.4-A), The product is not readily biodegradable.
Bis(triethoxysilylpropyl)amine	57 %, 28 d, OECD 301 C, The product is not biodegradable., aerobic 64,5 %, 28 d, OECD 306, The product is not biodegradable., aerobic 71 %, 60 d, OECD 306, The product is not biodegradable., aerobic
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

BOD/COD Ratio

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	No data available.
Bis(triethoxysilylpropyl)amine	No data available.
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	not bioaccumulative
Bis(triethoxysilylpropyl)amine	No data available.
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	No data available.
Components:	
3-Aminopropyltriethoxysilane	1,7, 20 °C, QSAR
Bis(triethoxysilylpropyl)amine	3,1, 20 °C, QSAR

1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Mobility in soil:

Product	No data available.
Components:	
3-Aminopropyltriethoxysilane	Adsorption on the floor: low.
Bis(triethoxysilylpropyl)amine	Adsorption on the floor: low.
1-(3-(triethoxysilyl)propyl)-2,2-diethoxy-1-aza-2-silacyclopentane	No data available.

Other adverse effects:

Other hazards

Product:	An Expert Judgment stated that no classification is necessary based on present knowledge.
Additional Information:	No ecotoxicological studies are available on the mixture.

13. Disposal considerations

Disposal methods:	With respect to local regulations, e.g. dispose of to suitable waste incineration plant.
Contaminated 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

International Regulations

IATA-DGR

UN/ID No.	:	UN 3267
Proper shipping name	:	Corrosive liquid, basic, organic, n.o.s. (3-aminopropyl-triethoxysilane)
Class	:	8
Packing group	:	II
Labels	:	8
Packing instruction (cargo aircraft)	:	855
Packing instruction (passenger aircraft)	:	851

IMDG-Code

UN number or ID number	:	UN 3267
Proper shipping name	:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

		(3-aminopropyl-triethoxysilane)
Class	:	8
Packing group	:	II
Labels	:	8
EmS Code	:	F-A, S-B
Marine pollutant	:	no
Remarks	:	Stowage category B, SW2 - Clear of living quarters., IMDG Code segregation group 18 - Alkalis, SG35 - Stow “separated from” SGG1 – acids.

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

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. Regulatory information

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

Kyoto protocol
Not applicable

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

Issue Date: 25.03.2019

Version #: 1.4

Abbreviations and acronyms:

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA -

International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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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