

SAFETY DATA SHEET

According to regulation (EC) n° 1907/2006 Annex II

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name: Dirko HT black 20ml	Product No.: 458.422
Dirko HT black 70ml	006.553
Dirko HT grey 70ml	036.164
Dirko HT grey 310ml	610.023
Dirko HT beige 70 ml	030.793

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Used for making joints, sealing and gluing.

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet:

ElringKlinger AG
Max-Eyth-Str. 2
72581 Dettingen/Erms - Deutschland

E-Mail: det.iam.sdb@elringklinger.com

1.4 Emergency telephone number:

Giftinformationszentrum (GIZ-Nord) Zentrum Pharmakologie und Toxikologie der Universität Göttingen	Robert-Koch Strasse 40 D-37075 Göttingen	+49 551 19240 (German/English)
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Health Hazards

Specific Target Organ Toxicity - Repeated Exposure Category 1 H372: Causes damage to organs through prolonged or repeated exposure.

Supplemental label information

EUH208: Contains 3-Aminopropyltriethoxysilane. May produce an allergic reaction.

Hazard summary

Physical Hazards: No data available.

Health Hazards

Inhalation: Quartz/cristobalite : When encapsulated in a polymer, is not expected to pose a health hazard when processed under normal conditions of use. Although classified according to EC criteria, this product is exempt from labelling according to article 23 and Annex 1 (section 1.3.4.1) of regulation (CE) n°1272/2008.

Eye contact:	May be irritating.
Skin contact:	The product contains a small amount of sensitizing substance which may provoke an allergic reaction among sensitive individuals in contact with skin.
Ingestion:	No specific symptoms noted.
Other Health Effects:	No other information noted.
Environmental Hazards:	Not regarded as dangerous for the environment.

2.3 Other hazards Meets vPvB criteria Meets PBT (persistent/bioaccumulative/toxic) criteria

Substance(s) formed under the conditions of use:

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration	Notes
2-Pentanone, oxime	<=5%	623-40-5		No data available.	
Ethanol	<=1%	64-17-5		01-2119457610-43-XXXX	#

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: Mixture of polydimethylsiloxanes, silica and curing agents.

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Quartz	20 - <50%	14808-60-7	238-878-4	Exempt	No data available.	#
2-Pentanone, O,O',O''-(ethenylsilyldiyl)trioxime	1 - <5%	58190-62-8		01-2120006148-66-XXXX	No data available.	
2-Pentandione, O,O',O''-(methylsilyldiyl)trioxime	1 - <5%	37859-55-5		01-2120004323-76-XXXX	No data available.	
3-Aminopropyltriethoxysilane	0,1 - <1%	919-30-2	213-048-4	01-2119480479-24-XXXX	No data available.	
Decamethylcyclopentasiloxane	0,1 - <1%	541-02-6	208-764-9	01-2119511367-43-0003	No data available.	vPvB
Dodecamethylcyclohexasiloxane	0,1 - <1%	540-97-6	208-762-8	01-2119517435-42-0002	No data available.	vPvB
Octamethylcyclotetrasiloxane	0,1 - <1%	556-67-2	209-136-7	01-2119529238-36-0002	No data available.	# PBT, vPvB

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

volume.
This substance has workplace exposure limit(s).

Classification

Chemical name	Classification	Notes
Quartz	STOT RE 1 H372;	No data available.
2-Pentanone, O,O',O"- (ethenylsilylidyne)trioxime	Acute Tox. 4 H302; Eye Irrit. 2 H319;	No data available.
2-Pentandione, O,O',O"- (methylsilylidyne)trioxime	Acute Tox. 4 H302; Eye Irrit. 2 H319;	No data available.
3-Aminopropyltriethoxysilane	Skin Sens. 1 H317; Acute Tox. 4 H302; Skin Corr. 1B H314;	No data available.
Decamethylcyclopentasiloxane	None known.	No data available.
Dodecamethylcyclohexasiloxane	None known.	No data available.
Octamethylcyclotetrasiloxane	Flam. Liq. 3 H226; Repr. 2 H361f; Aquatic Chronic 4 H413;	No data available.

CLP: Regulation No. 1272/2008.

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General: Get medical attention if symptoms occur. Contaminated clothing to be placed in closed container until disposal or decontamination.

4.1 Description of first aid measures

Inhalation: Move into fresh air and keep at rest.

Skin contact: Remove contaminated clothing and shoes. Wash with soap and water.

Eye contact: In the event of contact with the eyes, rinse thoroughly with clean water. Continue to rinse for at least 15 minutes.

Ingestion: Do not induce vomiting. Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: None known.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: No specific recommendations.

Treatment: No specific recommendations.

SECTION 5: Firefighting measures

General Fire Hazards: No specific recommendations.



5.1 Extinguishing media	
Suitable extinguishing media:	Extinguish with foam, carbon dioxide or dry powder.
Unsuitable extinguishing media:	Do not use water as an extinguisher.
5.2 Special hazards arising from the substance or mixture:	For further information, refer to section 10: "Stability and Reactivity".
5.3 Advice for firefighters	
Special fire fighting procedures:	Water spray should be used to cool containers.
Special protective equipment for fire-fighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:	Use personal protective equipment. Do not breathe vapor. See Section 8 of the SDS for Personal Protective Equipment. Ventilate the area.
6.1.2 For emergency responders:	No data available.

6.2 Environmental Precautions: Collect spillage. Do not discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up: Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Container must be kept tightly closed. Absorb with sand or other inert absorbent. To clean the floor and all objects contaminated by this material, use an appropriate solvent. (cf. : § 9) Flush area with plenty of water. Incinerate in suitable combustion chamber.

6.4 Reference to other sections: Caution: Contaminated surfaces may be slippery. For waste disposal, see Section 13 of the SDS.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Adequate ventilation should be provided so that exposure limits are not exceeded.

7.2 Conditions for safe storage, including any incompatibilities: Avoid discharge into drains, water courses or onto the ground. Store in tightly closed original container. Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures. Avoid contact with oxidizing agents. Vulcanizes at room temperature on contact with moisture in the air. For further information, refer to section 10: "Stability and Reactivity". Suitable containers: Steel drums coated with epoxy-resin.

7.3 Specific end use(s): No data available.

SECTION 8: Exposure controls/personal protection

**8.1 Control Parameters
Occupational Exposure Limits**

Quartz/cristobalite : When encapsulated in a polymer, is not expected to pose a health hazard when processed under normal conditions of use.

Additional exposure limits under the conditions of use

Chemical name	Type	Exposure Limit Values	Source
Ethanol	TWA	1 000 ppm 1 920 mg/m ³	UK. EH40 Workplace Exposure Limits (WELs) (2007)

8.2 Exposure controls

Appropriate Engineering Controls:

Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors. Use engineering controls to reduce air contamination to permissible exposure level. When working with heated oil, mechanical ventilation may be required.

Individual protection measures, such as personal protective equipment

General information:

Provide sufficient ventilation during operations which cause vapor formation.

Eye/face protection:

Safety Glasses.

Skin protection

Hand Protection:

Material: Rubber gloves are recommended.

Other:

It is a good industrial hygiene practice to minimize skin contact. Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory Protection:

If ventilation is insufficient, suitable respiratory protection must be provided.

Hygiene measures:

Provide eyewash station and safety shower.

Environmental Controls:

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:

Paste

Form:

thixotropic

Color:

black; grey; beige

Odor:

No data available.

Odor Threshold:

No data available.

pH:

No data available.

Melting Point:

No data available.

Boiling Point:

No data available.

Flash Point:

estimated > 150 °C (Closed cup according to method Afnor T 60103.)

Evaporation Rate:

No data available.

Flammability (solid, gas):

No data available.

Flammability Limit - Upper (%):

No data available.

Flammability Limit - Lower (%):

No data available.

Vapor pressure:

No data available.

Vapor density (air=1):

No data available.

Density:

Approximate 1,25 kg/dm³ (20 °C)

Solubility(ies)

Solubility in Water:

Practically Insoluble



Solubility (other):	Acetone: Very slightly soluble Alcohol: Very slightly soluble Aliphatic hydrocarbons: Dispersible Aromatic hydrocarbons: Dispersible Chlorinated solvents: Dispersible
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	According to the data on the components Not considered as oxidizing. (evaluation by structure-activity relationship)

9.2 Other information: No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	Vulcanizes at room temperature on contact with moisture in the air.
10.2 Chemical Stability:	Stable at room temperature provided it is not in contact with air.
10.3 Possibility of hazardous reactions:	No data available.
10.4 Conditions to avoid:	No other information noted.
10.5 Incompatible Materials:	Strong oxidizing agents. Water.
10.6 Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Amorphous silica.

SECTION 11: Toxicological information

Information on likely routes of exposure

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

11.1 Information on toxicological effects:

Acute toxicity:

Oral:

Product: ATEmix (): 8 597 mg/kg

Dermal:

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

Inhalation:

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

Repeated dose toxicity:

Product:	Composition/information on ingredients
Specified substance(s): 2-Pentanone, O,O',O''-(ethenylsilylidyne)trioxime	NOAEL (Rat(Female, Male), Oral): 18 mg/kg Method: OECD 422 Subacute exposure NOAEL (Rat(Female, Male), Oral): 13 mg/kg Method: OECD 408 Subchronic exposure
2-Pentandione, O,O',O''-(methylsilylidyne)trioxime	NOAEL (Rat(Female, Male), Oral): 17 mg/kg Method: OECD 422 Subacute exposure NOAEL (Rat(Female, Male), Oral): 13 mg/kg Method: OECD 408 Subchronic exposure
3-aminopropyltriethoxysilane	NOAEL (Rat(Female, Male), Oral): 200 mg/kg Method: OECD 408 LOAEL (Rat(Female, Male), Oral): 600 mg/kg Subchronic exposure
Decamethylcyclopentasiloxane	NOAEL (Rat(Female, Male), Oral): $\geq 1\ 000$ mg/kg Method: OECD 408 Subchronic exposure NOAEL (Rat(Female, Male), Inhalation - vapour): $\geq 2,42$ mg/l Method: OECD 453 Chronic exposure NOAEL (Rat(Female, Male), Dermal): $\geq 1\ 600$ mg/kg Method: OECD 410 Subacute exposure
Dodecamethylcyclohexasiloxane	NOAEL (Rat(Female, Male), Oral): $\geq 1\ 000$ mg/kg Method: OECD 422 Subacute exposure NOAEL (Rat(Female, Male), Inhalation - vapour): 0,0182 mg/l Method: OECD 413 Subchronic exposure
Octamethylcyclotetrasiloxane	NOAEL (Rat(Female, Male), Inhalation - vapour): 1,82 mg/l Method: Similar to OECD 453 Chronic exposure NOAEL (Rabbit(Female, Male), Dermal): ≥ 960 mg/kg Method: Similar to OECD 410 Subacute exposure

Skin Corrosion/Irritation:

Product:	Composition/information on ingredients
Specified substance(s): 2-Pentanone, O,O',O''-(ethenylsilylidyne)trioxime	OECD 404 (Rabbit) : Not irritating Results obtained on a similar product.
2-Pentandione, O,O',O''-(methylsilylidyne)trioxime	OECD 404 (Rabbit) : Not irritating
3-aminopropyltriethoxysilane	OECD 404 (Rabbit, 1 h) : Corrosive
Decamethylcyclopentasiloxane	OECD 404 (Rabbit) : Not irritating
Dodecamethylcyclohexasiloxane	OECD 404 (Rabbit) : Not irritating
Octamethylcyclotetrasiloxane	Similar to OECD 404 (Rabbit) : Not irritating

Serious Eye Damage/Eye Irritation:



Product:	Com position/information on ingredients
Specified substance(s): 2-Pentanone, O,O',O"- (ethenylsilylidyne)trioxime	OECD 405 (Rabbit) : Irritant. Results obtained on a similar product.
2-Pentandione, O,O',O"- (methylsilylidyne)trioxime	OECD 405 (Rabbit) : Irritant. Results obtained on a similar product.
3-aminopropyltriethoxysilane	OECD 405 (Rabbit) : Corrosive.
Decamethylcyclopentasiloxane	OECD 405 (Rabbit) : Not irritating
Dodecamethylcyclohexasiloxane	OECD 405 (Rabbit) : Not irritating
ne	
Octamethylcyclotetrasiloxane	OECD 405 (Rabbit) : Not irritating

Respiratory or Skin

Sensitization:

Product:	Com position/information on ingredients
Specified substance(s): 2-Pentanone, O,O',O"- (ethenylsilylidyne)trioxime	OECD 406 (Guinea PigNot a skin sensitizer.) : Results obtained on a similar product.
2-Pentandione, O,O',O"- (methylsilylidyne)trioxime	OECD 406 (Guinea PigNot a skin sensitizer.) : Results obtained on a similar product.
3-am inopropyltriethoxysilane	OECD 406 (Guinea PigMay cause an allergic skin reaction.) :
Decamethylcyclopentasiloxane	OECD 429 (Mouse) : Not a skin sensitizer.
Dodecamethylcyclohexasiloxane	OECD 406 (Guinea Pig) : Not a skin sensitizer.
ne	
Octamethylcyclotetrasiloxane	OECD 406 (Guinea Pig) : Not a skin sensitizer.

Germ Cell Mutagenicity:**In vitro:**

Product:	Com position/information on ingredients
Specified substance(s): 2-Pentanone, O,O',O''- (ethenylsilylidyne)trioxime	Bacterial reverse mutation test (OECD 471): No mutagenic effects. with and without metabolic activation In vitro gene mutations test on mammalian cells: (OECD 476): No mutagenic effects. with and without metabolic activation Results obtained on a similar product. Chromosomal aberration (OECD 473): positive with metabolic activation Negative without metabolic activation Results obtained on a similar product.
2-Pentandione, O,O',O''- (methylsilylidyne)trioxime	Bacterial reverse mutation test (OECD 471): No mutagenic effects. with and without metabolic activation Chromosomal aberration (OECD 473): positive with metabolic activation Negative without metabolic activation In vitro gene mutations test on mammalian cells: (OECD 476): No mutagenic effects. with and without metabolic activation
3-aminopropyltriethoxysilane	Bacteria (OECD 471): No mutagenic effects. with and without metabolic activation Chromosomal aberration (OECD 473): No clastogenic effect. with and without metabolic activation In vitro gene mutations test on mammalian cells: (OECD 476): No mutagenic effects. with and without metabolic activation
Decamethylcyclopentasiloxane	Bacterial reverse mutation test (OECD 471): No mutagenic components identified. with and without metabolic activation In vitro gene mutations test on mammalian cells: (OECD 476): No mutagenic components identified. with and without metabolic activation Chromosomal aberration (OECD 473): No clastogenic effect. with and without metabolic activation
Dodecamethylcyclohexasiloxane	Bacterial reverse mutation test (OECD 471): No mutagenic effects. with and without metabolic activation In vitro gene mutations test on mammalian cells: (OECD 476): No mutagenic effects. with and without metabolic activation
Octamethylcyclotetrasiloxane	Bacterial reverse mutation test (OECD 471): No mutagenic effects. with and without metabolic activation In vitro gene mutations test on mammalian cells: (Similar to OECD 476): No mutagenic effects. with and without metabolic activation In vitro mammalian chromosomal aberration test (Similar to OECD 473): No clastogenic effect. with and without metabolic activation

In vivo:

Product: No data available.

Specified substance(s):
2-Pentanone, O,O',O''-
(ethenylsilylidyne)trioxime

Mammalian erythrocyte micronucleus test (OECD 474): Results obtained on a similar product.negative

2-Pentandione, O,O',O"- (methylsilylidyne)trioxime	Mammalian erythrocyte micronucleus test (OECD 474): negative
3-aminopropyltriethoxysilane	Mammalian erythrocyte micronucleus test (OECD 474): No mutagenic effects.
Decamethylcyclopentasiloxane	Mammalian erythrocyte micronucleus test (OECD 474): negative Unscheduled DNA Synthesis (UDS) Test with mammalian liver cells in vivo (OECD 486): negative
Dodecamethylcyclohexasiloxane	Mammalian erythrocyte micronucleus test (OECD 474): No mutagenic effects.
Octamethylcyclotetrasiloxane	Mammalian bone marrow chromosomal aberration test (Similar to OECD 475): negative Rodent dominant Lethal test (Similar to OECD 478): negative

Carcinogenicity:

Product: No data available.

Reproductive toxicity:

Product: Com position/information on ingredients

Specified substance(s):

2-Pentanone, O,O',O"-
(ethenylsilylidyne)trioxime Not classified

2-Pentandione, O,O',O"-
(methylsilylidyne)trioxime Not classified

3-aminopropyltriethoxysilane Not classified

Decamethylcyclopentasiloxane Not classified

Dodecamethylcyclohexasiloxane Not classified

Octamethylcyclotetrasiloxane Suspected of damaging fertility.

Reproductive toxicity

(Fertility):

Product: Com position/information on ingredients

Specified substance(s):

2-Pentanone, O,O',O"-
(ethenylsilylidyne)trioxime Fertility study 1 generation Rat Female, Male (Ingestion): NOAEL
(parent): > 103 mg/kg NOAEL (F1): NOAEL (F2): Method: OECD 415
Results obtained on a similar product.

2-Pentandione, O,O',O"-
(methylsilylidyne)trioxime Fertility study 1 generation Rat Female, Male (Ingestion): NOAEL
(parent): > 99 mg/kg NOAEL (F1): NOAEL (F2): Method: OECD 415
Results obtained on a similar product.

Decamethylcyclopentasiloxane Fertility study 2 generations. Rat Female, Male (Inhalation - vapor):
NOAEL (parent): > 2,496 mg/l NOAEL (F1): 2,496 mg/l NOAEL (F2):
Method: OECD 416

Dodecamethylcyclohexasiloxane ne Reproduction/developmental toxicity screening test Rat Female, Male
(Gavage (Oral)): NOAEL (parent): >= 1 000 mg/kg NOAEL (F1): 1 000
mg/kg NOAEL (F2): Method: OECD 422 The product is not considered
to affect fertility.

Octamethylcyclotetrasiloxane Fertility study 2 generations. Rat Female, Male (Inhalation): NOAEL
(parent): 3,64 mg/l NOAEL (F1): 3,64 mg/l NOAEL (F2): Method:
Similar to OECD 416 Effects on fertility

Developmental toxicity (Teratogenicity):

Product:

Com position/information on ingredients

Specified substance(s):

2-Pentanone, O,O',O"-
(ethenylsilylidyne)trioxime Rat (Ingestion): > NOAEL (terato): > 103 mg/kg NOAEL (mater): 103
mg/kg Method: According to a standardised method. Results
obtained on a similar product.

2-Pentandione, O,O',O"-
(methylsilylidyne)trioxime Rat > NOAEL (terato): > 99 mg/kg NOAEL (mater): 99 mg/kg Method:
According to a standardised method. Results obtained on a similar
product.

3-aminopropyltriethoxysilane Rat (Ingestion): NOAEL (terato): 100 mg/kg NOAEL (mater): 100
mg/kg Method: OECD 414 The product is not considered to be toxic for
development.

Dodecamethylcyclohexasiloxane ne Rabbit (Gavage (Oral)): >= NOAEL (terato): >= 1 000 mg/kg NOAEL
(mater): 1 000 mg/kg Method: OECD 414 Rat (Gavage (Oral)): >=
NOAEL (terato): >= 1 000 mg/kg NOAEL (mater): 1 000 mg/kg Method:
OECD 414

Octamethylcyclotetrasiloxane Rat (Inhalation - vapor): >= NOAEL (terato): >= 8,492 mg/l NOAEL
(mater): 3,64 mg/l Method: Similar to OECD 414 The product is not
considered to be toxic for development. Rabbit (Inhalation - vapor): >=
NOAEL (terato): >= 6,066 mg/l NOAEL (mater): Method: Similar to
OECD 414 The product is not considered to be toxic for development.

Specific Target Organ Toxicity - Single Exposure:

Product:

Com position/information on ingredients

Specified substance(s):



2-Pentanone, O,O',O"-
(ethenylsilylidyne)trioxime Not classified

2-Pentandione, O,O',O"-
(methylsilylidyne)trioxime Not classified

3-aminopropyltriethoxysilane Not classified

Decamethylcyclopentasiloxane Not classified

Dodecamethylcyclohexasiloxane Not classified

Octamethylcyclotetrasiloxane Not classified

Specific Target Organ Toxicity - Repeated Exposure:

Product: Com position/information on

ingredients **Specified substance(s):**

2-Pentanone, O,O',O"-
(ethenylsilylidyne)trioxime Not classified

2-Pentandione, O,O',O"-
(methylsilylidyne)trioxime Not classified

3-aminopropyltriethoxysilane Not classified

Decamethylcyclopentasiloxane Not classified

Dodecamethylcyclohexasiloxane Not classified

Octamethylcyclotetrasiloxane Not classified

Aspiration Hazard:

Product: No data available.

Specified substance(s):

2-Pentanone, O,O',O"-
(ethenylsilylidyne)trioxime Not classified

2-Pentandione, O,O',O"-
(methylsilylidyne)trioxime Not classified

3-aminopropyltriethoxysilane Not classified

Decamethylcyclopentasiloxane Not classified

Dodecamethylcyclohexasiloxane Not classified

Octamethylcyclotetrasiloxane Not classified

SECTION 12: Ecological information

General information: Not applicable

12.1 Toxicity:**Acute toxicity:****Fish:**

Product: Com position/information on ingredients

Specified substance(s):

2-Pentanone, O,O',O"-
(ethenylsilylidyne)trioxime LC 50 (Oncorhynchus mykiss, 96 h): > 117 mg/l Results obtained on a similar product.

2-Pentandione, O,O',O"-
(methylsilylidyne)trioxime LC 50 (Oncorhynchus mykiss, 96 h): > 113 mg/l Results obtained on a similar product.

3-aminopropyltriethoxysilane LC 50 (Danio rerio, 96 h): > 934 mg/l

Decamethylcyclopentasiloxane LC 50 (Oncorhynchus mykiss, 96 h): > 0,016 mg/l
NOEC (Oncorhynchus mykiss, 96 h): >= 0,016 mg/l

Dodecamethylcyclohexasiloxane LC 50 (Oncorhynchus mykiss, 96 h): > 0,016 mg/l
e

Octamethylcyclotetrasiloxane LC 50 (Oncorhynchus mykiss, 96 h): > 0,022 mg/l

Aquatic Invertebrates:

Product: Com position/information on ingredients

Specified substance(s):

2-Pentanone, O,O',O"-
(ethenylsilylidyne)trioxime EC 50 (Water flea (Daphnia magna), 48 h): > 117 mg/l Results obtained on a similar product.

2-Pentandione, O,O',O"-
(methylsilylidyne)trioxime EC 50 (Water flea (Daphnia magna), 48 h): > 113 mg/l Results obtained on a similar product.

3-aminopropyltriethoxysilane EC 50 (Water flea (Daphnia magna), 48 h): 331 mg/l

Decamethylcyclopentasiloxane EC 50 (Water flea (Daphnia magna), 48 h): > 0,0029 mg/l
NOEC (Water flea (Daphnia magna), 48 h): >= 0,0029 mg/l

Dodecamethylcyclohexasiloxane EC 50 (Water flea (Daphnia magna), 48 h): > 0,0029 mg/l
e

Octamethylcyclotetrasiloxane EC 50 (Water flea (Daphnia magna), 48 h): > 0,015 mg/l

Chronic Toxicity:**Fish:**

Product: Com position/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxane NOEC (Oncorhynchus mykiss, 90 d): >= 0,014 mg/l

Dodecamethylcyclohexasiloxan NOEC (Oncorhynchus mykiss, 90 d): $\geq 0,014$ mg/l
e

Octamethylcyclotetrasiloxane NOEC (Oncorhynchus mykiss, 93 d): $\geq 0,0044$ mg/l

Aquatic Invertebrates:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxane NOEC (Water flea (Daphnia magna), 21 d): $\geq 0,015$ mg/l

Dodecamethylcyclohexasiloxan NOEC (Water flea (Daphnia magna), 21 d): $\geq 0,0046$ mg/l
e

Octamethylcyclotetrasiloxane NOEC (Water flea (Daphnia magna), 21 d): $\geq 0,015$ mg/l

Toxicity to Aquatic Plants:

Product: Composition/information on ingredients

Specified substance(s):

2-Pentanone, O,O',O"-
(ethenylsilylidyne)trioxime ErC50 (Algae (Pseudokirchneriella subcapitata), 72 h): 103 mg/l
Results obtained on a similar product.
NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): 37 mg/l
Results obtained on a similar product.

2-Pentandione, O,O',O"-
(methylsilylidyne)trioxime ErC50 (Algae (Pseudokirchneriella subcapitata), 72 h): 100 mg/l
Results obtained on a similar product.
NOEC (growth rate) (Algae (Pseudokirchneriella subcapitata), 72 h):
36 mg/l Results obtained on a similar product.

3-aminopropyltriethoxysilane EC 50 (Green algae (Scenedesmus subspicatus), 72 h): $> 1\ 000$ mg/l
NOEC (growth rate) (Green algae (Scenedesmus subspicatus), 72 h): 1,3 mg/l

Decamethylcyclopentasiloxane EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): $> 0,012$ mg/l
NOEC (Algae (Pseudokirchneriella subcapitata), 96 h): $\geq 0,012$ mg/l

Dodecamethylcyclohexasiloxane NOEC (growth rate) (Algae (Pseudokirchneriella subcapitata), 72 h):
 $\geq 0,002$ mg/l
ErC50 (Algae (Pseudokirchneriella subcapitata), 72 h): $> 0,002$ mg/l

Octamethylcyclotetrasiloxane ErC50 (Algae (Pseudokirchneriella subcapitata), 96 h): $> 0,022$ mg/l
ErC10 (Algae (Pseudokirchneriella subcapitata), 96 h): $\geq 0,022$ mg/l

12.2 Persistence and Degradability:

Biodegradation:

Product: Composition/information on ingredients

Specified substance(s):

2-Pentanone, O,O',O"- (ethenylsilylidyne)trioxime	1 % (28 d, OECD 301 B) Not readily degradable. Results obtained on a similar product.
2-Pentandione, O,O',O"- (methylsilylidyne)trioxime	1 % (28 d, OECD 301 B) The product is not readily biodegradable.
3-aminopropyltriethoxysilane	67 % (28 d, According to a standardised method.) The product is not readily biodegradable.
Decamethylcyclopentasiloxane	0,14 % (28 d) The product is not readily biodegradable.
Dodecamethylcyclohexasiloxane	4,5 % (28 d, OECD 310) The product is not readily biodegradable.
Octamethylcyclotetrasiloxane	3,7 % (28 d, OECD 310) The product is not considered to be readily biodegradable.

BOD/COD Ratio:

Product: No data available.

12.3 Bioaccumulative potential:

Product:	Composition/information on ingredients
Specified substance(s):	
2-Pentanone, O,O',O"- (ethenylsilylidyne)trioxime	Bioconcentration Factor (BCF): 69,21 The product is not considered to have a bioaccumulative potential. Structure-activity relationship (SAR)
2-Pentandione, O,O',O"- (methylsilylidyne)trioxime	Bioconcentration Factor (BCF): 103,3 The product is not considered to have a bioaccumulative potential. Structure-activity relationship (SAR)
3-aminopropyltriethoxysilane	Common Carp, Bioconcentration Factor (BCF): 3,4 (OECD 305)
Decamethylcyclopentasiloxane	Pimephales promelas, Bioconcentration Factor (BCF): 16 200 (OECD 305) The product is not bioaccumulating.
Dodecamethylcyclohexasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 2 860 (OECD 305) Has the potential to bioaccumulate.
Octamethylcyclotetrasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 14 900 (OECD 305) Not bioaccumulable based on the depuration rate constant

12.4 Mobility in soil: No data available.

12.5 Results of PBT and vPvB assessment: Composition/information on ingredients

Decamethylcyclopentasiloxane	Meets vPvB criteria	REACH (1907/2006) Ax XIII
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Dodecamethylcyclohexasiloxane	Meets vPvB criteria	REACH (1907/2006) Ax XIII
Octamethylcyclotetrasiloxane	Meets PBT (persistent/bioaccumulative/toxic) criteria, Meets vPvB criteria	REACH (1907/2006) Ax XIII

12.6 Other adverse effects: No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

General information: The user's attention is drawn to the possible existence of local regulations regarding disposal.

Disposal methods

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Incinerate.

Contaminated Packaging: Contaminated packages should be as empty as possible. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Recycle following cleaning or dispose of at an authorised site.

SECTION 14: Transport information

This material is not subject to transport regulations.

Other information: No special precautions.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended: none

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

**Inventory Status:**

Australia AICS:	Not in compliance with the inventory.
Canada DSL Inventory List:	Not in compliance with the inventory.
EINECS, ELINCS or NLP:	On or in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Philippines PICCS:	Not in compliance with the inventory.
US TSCA Inventory:	Not in compliance with the inventory.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory.

SECTION 16: Other information

Revision Information: Not relevant.

References

PBT	PBT: persistent, bioaccumulative and toxic substance.
vPvB	vPvB: very persistent and very bioaccumulative substance.

Key abbreviations or acronyms used:

No data available.

Key literature references and sources for data: No data available.

Wording of the H-statements in section 2 and 3

H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H413	May cause long lasting harmful effects to aquatic life.

Training information: No data available.

Issue Date: 05.09.2019

SDS No.:

Disclaimer: The information given is based on data available for the material, the components of the material, and similar materials. The information is believed to be correct. It is given in good faith. This information should be used to make an independent determination of the methods to safeguard workers and the environment.