

# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

# **Green Fix**

### SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1. Product identifier Product name : Green Fix Registration number REACH : Not applicable (mixture) Product type REACH : Mixture 1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1 Relevant identified uses Adhesive 1.2.2 Uses advised against No uses advised against known 1.3. Details of the supplier of the safety data sheet Supplier of the safety data sheet SOUDAL N.V. Everdongenlaan 18-20 B-2300 Turnhout **2** +32 14 42 42 31 +32 14 42 65 14 msds@soudal.com Manufacturer of the product SOUDAL N.V. Everdongenlaan 18-20 B-2300 Turnhout **2** +32 14 42 42 31 +32 14 42 65 14 msds@soudal.com 1.4. Emergency telephone number 24h/24h (Telephone advice: English, French, German, Dutch): +32 14 58 45 45 (BIG) SECTION 2: Hazards identification 2.1. Classification of the substance or mixture Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008 2.2. Label elements Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008 2.3. Other hazards No other hazards known SECTION 3: Composition/information on ingredients 3.1. Substances Not applicable 3.2. Mixtures Name CAS No Conc. (C) Classification according to CLP Note Remark REACH Registration No FC No trimethoxyvinylsilane 2768-02-7 1%<C<3% Flam. Liq. 3; H226 (1)(10) Constituent 01-2119513215-52 220-449-8 Acute Tox. 4; H332 3-(trimethoxysilyl)propylamine 13822-56-5 1%<C<3% Skin Irrit. 2; H315 (1)(10) Constituent 01-2119510159-45 237-511-5 ye Dam. 1; H318 (1) For H-statements in full: see heading 16 (10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006 SECTION 4: First aid measures Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG) Publication date: 2007-08-16 134-15960-476-en Technische Schoolstraat 43 A, B-2440 Geel Date of revision: 2015-11-13 http://www.big.be © BIG vzw Reason for revision: 2;3

Revision number: 0200

Product number: 45248

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# 4.1. Description of first aid measures

### General:

If you feel unwell, seek medical advice.

# After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact: Rinse with water. Take victim to a doctor if irritation persists.

# After eye contact:

Rinse with water. Take victim to an ophthalmologist if irritation persists.

# After ingestion:

Rinse mouth with water. Consult a doctor/medical service if you feel unwell.

# 4.2. Most important symptoms and effects, both acute and delayed

4.2.1 Acute symptoms After inhalation: No effects known. After skin contact: No effects known. After eye contact: No effects known. After ingestion: No effects known.

### 4.2.2 Delayed symptoms No effects known.

# **4.3. Indication of any immediate medical attention and special treatment needed** If applicable and available it will be listed below.

# SECTION 5: Firefighting measures

# 5.1. Extinguishing media

5.1.1 Suitable extinguishing media: Adapt extinguishing media to the environment.
5.1.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known.

# 5.2. Special hazards arising from the substance or mixture

Upon combustion: formation of CO, CO2 and small quantities of hydrogen chloride, nitrous vapours, sulphur oxides.

# 5.3. Advice for firefighters

5.3.1 Instructions:

- No specific fire-fighting instructions required.
- 5.3.2 Special protective equipment for fire-fighters:
  - Gloves. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

# SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures 6.1.1 Protective equipment for non-emergency personnel

- See heading 8.2
- 6.1.2 Protective equipment for emergency responders
  - Gloves. Protective clothing.

Suitable protective clothing

See heading 8.2

# 6.2. Environmental precautions

Contain leaking substance. Use appropriate containment to avoid environmental contamination.

# 6.3. Methods and material for containment and cleaning up

Scoop solid spill into closing containers. Clean contaminated surfaces with a soap solution. Wash clothing and equipment after handling.

# 6.4. Reference to other sections

See heading 13.

# SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

# 7.1. Precautions for safe handling

Reason for revision: 2;3

Publication date: 2007-08-16 Date of revision: 2015-11-13

		Green Fix		
Observe normal hygiene star	ndards.			
<ul> <li>7.2.1 Safe storage requirements Store in a dry area. Store</li> <li>7.2.2 Keep away from: Heat sources.</li> <li>7.2.3 Suitable packaging material</li> </ul>	ents: at room te	ncluding any incompatibilities mperature. Meet the legal requirements. Max. st	orage time: 1 year(s).	
Synthetic material. <b>7.2.4 Non suitable packagin</b> No data available	g material:			
7.3. Specific end use(s) If applicable and available	e, exposure	scenarios are attached in annex. See information	n supplied by the manufacturer.	
CTION 8: Exposure	contro	ols/personal protection		
<ul> <li>b) National biological limit values are applical</li> <li>8.1.2 Sampling methods</li> <li>If applicable and available</li> <li>8.1.3 Applicable limit values</li> <li>If limit values are applical</li> <li>8.1.4 DNEL/PNEC values</li> </ul>	e limit value ole and ava t values ole and ava e it will be l when usin	ilable these will be listed below. ilable these will be listed below.		
DNEL/DMEL - Workers trimethoxyvinylsilane				
Effect level (DNEL/DM	EL)	Туре	Value	Remark
DNEL		Long-term systemic effects inhalation	4.9 mg/m <sup>3</sup>	
<u>3-(trimethoxysilyl)propyla</u>	mino	Long-term systemic effects dermal	0.69 mg/kg bw/day	
Effect level (DNEL/DM		Туре	Value	Remark
DNEL		Long-term systemic effects inhalation	58 mg/m <sup>3</sup>	
		Long-term systemic effects dermal	8.3 mg/kg bw/day	
DNEL/DMEL - General po	pulation			
trimethoxyvinylsilane Effect level (DNEL/DM	51.)	Туре	Value	Remark
DNEL		Long-term systemic effects inhalation	1.04 mg/m <sup>3</sup>	Kennark
		Acute systemic effects inhalation	93.4 mg/m <sup>3</sup> day	
		Acute systemic effects dermal	0.3 mg/kg bw/day	
		Acute systemic effects dermal	26.9 mg/kg bw/day	
3-(trimethoxysilyl)propyla	mino	Acute systemic effects dermal	0.3 mg/kg bw/day	
Effect level (DNEL/DM		Туре	Value	Remark
DNEL		Long-term systemic effects inhalation	17 mg/m³	
		Long-term systemic effects dermal	5 mg/kg bw/day	
PNEC		Long-term systemic effects oral	5 mg/kg bw/day	
trimethoxyvinylsilane				
Compartments		Value	Remark	
Fresh water		0.34 mg/l		
Marine water		0.034 mg/l		
Aqua (intermittent rele	ases)	3.4 mg/l		
STP Fresh water sediment		110 mg/l 1.24 mg/kg sediment dw		
Marine water sediment	t	0.12 mg/kg sediment dw		
Soil		0.052 mg/kg soil dw		
son for revision: 2.2			Publication data: 2007 (	18-16
son for revision: 2;3			Publication date: 2007-0 Date of revision: 2015-1	

3-(trimethoxysilyl)propylamine		
Compartments	Value	Remark
Fresh water	0.33 mg/l	
Marine water	0.033 mg/l	
Aqua (intermittent releases)	3.3 mg/l	
STP	13 mg/l	
Fresh water sediment	1.2 mg/kg sediment dw	
Marine water sediment	0.12 mg/kg sediment dw	
Soil	0.045 mg/kg soil dw	
Oral	44.4 mg/kg food	

# 8.1.5 Control banding

If applicable and available it will be listed below.

# 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

# 8.2.1 Appropriate engineering controls

Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

- 8.2.2 Individual protection measures, such as personal protective equipment
  - Observe normal hygiene standards. Do not eat, drink or smoke during work.

# a) Respiratory protection:

Respiratory protection not required in normal conditions.

# b) Hand protection:

Gloves.

# c) Eye protection:

Eye protection not required in normal conditions.

# d) Skin protection:

Protective clothing.

# 8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

# SECTION 9: Physical and chemical properties

# 9.1. Information on basic physical and chemical properties

Physical form	Paste	loperties
Odour		eristic odour
Odour threshold		available
Colour		e in colour, depending on the composition
Particle size		available
Explosion limits		available
Flammability		mmable
Log Kow		p <mark>licable</mark> (mixture)
Dynamic viscosity		available
Kinematic viscosity		available
Melting point	No data	available
Boiling point	No data	available
Flash point		available
Evaporation rate	No data	available
Relative vapour density	Not app	plicable
Vapour pressure		available
Solubility	water ;	insoluble
Relative density	1.396 ;	20 °C
Decomposition tempera		available
Auto-ignition temperatu	re No data	available
Explosive properties		nical group associated with explosive properties
Oxidising properties	No cher	nical group associated with oxidising properties
рН	No data	available
9.2. Other information		
	1207 14	
Absolute density	1396 KU	/m³; 20 °C
CTION 10: Stability	and reactivity	
	andreactivity	
10.1. Reactivity		
No data available.		
10.2. Chemical stability		
Stable under normal con	ditions.	

Reason for revision: 2;3

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# Publication date: 2007-08-16 Date of revision: 2015-11-13

					Gr	reer	ר Fix			
10.3	. Possibility of I	hazard	lous read	tions						
	No data available									
10.4	. Conditions to No data available					1				
10.5	. Incompatible No data available		ials							
10.6	. Hazardous de						able state in the second	an ann an da bana an da		
		_				nydrogen	chloride, nitrous v	apours, sulphur oxid	es.	
	<u> ON 11: Toxi</u>		Ĭ		1					
	. Information on 1.1.1 Test results	on toxi	cological	effects						
ute to	xicity									
Green F										
	(test)data on the m nethoxyvinylsilane	ixture av	vailable							
	Route of exposure	Parar	neter Me	thod	Value		Exposure time	Species	Value determination	Remark
İ	Oral	LD50	Equ 401		7120 mg/k	g		Rat (male)	Experimental value	
	Oral	LD50	Equ	ivalent to OECD	7236 mg/k	g bw		Rat (female)	Experimental value	
	Dermal	LD50		ivalent to OECD	<mark>3.36 ml/kg</mark>	bw 2	24 h	Rabbit	Experimental value	
ł	Inhalation (vapours	s) LC50	402 Equ	ivalent to OECD	16.8 mg/l		4 h	(male/female) Rat (male/female)	Experimental value	
	rimethoxysilyl)prop		403					, , , , , , , , , , , , , , , , , , , ,		
	Route of exposure			thod	Value		Exposure time	Species	Value determination	Remark
	Oral	LD50			<mark>2.970 m</mark> l/k	g bw		Rat (male)	Experimental value	
·	Dermal	LD50	401 Equ		11.3 ml/kg	bw 2	24 h	Rabbit (male)	Experimental value	
	Inhalation (vapours	s) LC50	402 OE0	2 CD 403	> 5 ppm		6 h	Rat (male)	Read-across	
	Inhalation (vapours	s) LC50	OE	CD 403	> 16 ppm	l	6 h	Rat (female)	Read-across	
Concl	gement is based on l <mark>usion</mark> classified for acute		-	alents						
rrosior	n/irritation	-								
Green F										
No (	(test)data on the m	ixture av	vailable							
	nethoxyvinylsilane Route of exposure	Result		Method	Exposur	e time	Time point	Species	Value determination	Remark
		Not irrit Not irrit		OECD 405 Other	24 h 24 h		1; 24; 48; 72 ho 24; 48; 72 hours		Experimental valu Experimental valu	
<u>3-(ti</u>	rimethoxysilyl)prop Route of exposure	ylamine	°	Method		o timo		Species	Value	Remark
					Exposur	eune	Time point		determination	Kemark
E		Serious damage		Equivalent to OECD 405			24; 48; 72 hours		Read-across	
c	Skin	Irritatinę	9	OECD 404	3 minute minutes		1; 24; 48; 72; 16 hours	8 Rat	Calculated value	
B	link -form-stical	experie	nce, the cla	ssification for this				based on the calculat	ion set out	
In th										
In th Concl Not Not	lusion classified as irritati classified as irritati	ng to th	e eyes	n outra						
In th <u>Concl</u> Not Not Not	lusion classified as irritati classified as irritati classified as irritati	ng to the ng to the	e eyes	ry system						
In th Concl Not Not Not Spirato	lusion classified as irritati classified as irritati classified as irritati ory or skin sensitisa Fix	ng to the ng to the ation	e eyes e respirato	ry system						
In th Concl Not Not Spirato Sreen F No (	lusion classified as irritati classified as irritati classified as irritati ory or skin sensitisa	ng to the ng to the ation	e eyes e respirato	ry system				Publication date: 20	007-08-16	
In th Concl Not Not Spirato Sreen F No (	lusion classified as irritati classified as irritati classified as irritati ory or skin sensitisa Fix (test)data on the m	ng to the ng to the ation	e eyes e respirato	ry system				Publication date: 20 Date of revision: 20		

sitizing e sitizing levant in r skin r inhalat	Method OECD 406 Method OECD 406 gredients		ure time ure time	point 24; 48 hours	Guinea pig Exp (male/female)	ue determination perimental value	Remark
sitizing levant in r skin	OECD 406 Method OECD 406	Expos		point 24; 48 hours	Guinea pig Exp (male/female)		Remark
sitizing levant in r skin	Method OECD 406		ure time	24; 48 hours	(male/female)	perimental value	
sitizing levant in r skin	OECD 406		ure time	Observation time			
levant in r skin		72 h		point	Species Val	ue determination	Remark
r skin	gredients			24; 48 hours	Guinea pig Exp (male/female)	perimental value	
	ion						
allable							
neter M	Viethod	Value	Organ	Effect	Exposure time	Species	Value
	nethou		Sigari	LICCO		opecies	determinatio
. (	DECD 422	62.5 mg/kg bw/day	Thymus	Weight reduction	6 weeks (daily) - 8 weeks (daily)	Rat (male/female)	Experimental value
c (	Other	100 ppm		Change in urin	e 14 weeks (6h/day,	5 Rat	Experimental value
c c	Other	10 ppm		No effect	14 weeks (6h/day,		Experimental
					days/week)	(male/female)	value
	Vethod	Value	Organ	Effoct	Exposure time	Species	Value
							determinatio
- 0	DECD 408	600 mg/kg bw/day	Liver			Rat (male/female)	Read-across
L C	DECD 408	200 mg/kg bw/day	Liver	No effect	92 day(s)	Rat (male/female)	Read-across
ation (		, j	Lungs			Rat (male)	Read-across
,	2						
Me	thod		Test substr	ate E	Effect	Value dete	rmination
	CD 473		CHL/IU cell	s (	Chromosome aberration	ons Experimen <sup>-</sup>	tal value
	CD 476		Chinese ha	mster ovary (CHO) N	No effect	Experiment	tal value
	CD 471		Bacteria (S.	typhimurium)	No effect	Experimen	tal value
OFC	CD 471		Escherichia	coli	No effect	Experimen	tal value
	L C C C C C C C C C C C C C C C C C C C	neterMethodLOECD 422COtherCOtherCOtherCOECD 408DemoterMethodLOECD 408Equivalent to OECD 412Idevant ingredientstoxicityavailableMethodOECD 473utOECD 476outOECD 471	neterMethodValueLOECD 42262.5 mg/kg bw/dayCOther100 ppmECOther10 ppmICOther10 ppmICOther10 ppmICOECD 408600 mg/kg bw/dayLOECD 408200 mg/kg bw/dayELOECD 408200 mg/kg bw/dayELOECD 412147 mg/m³ airIevant ingredients147 mg/m³ airvaailableOECD 473OECD 473OECD 476outOECD 471	neterMethodValueOrganLOECD 422 $62.5 \text{ mg/kg}$ bw/dayThymus bw/dayCOther100 ppmIntercentCOther100 ppmIntercentCOther10 ppmIntercentDecompositionOECD 408 $600 \text{ mg/kg}$ bw/dayLiverCOECD 408 $200 \text{ mg/kg}$ bw/dayLiverEOECD 408 $200 \text{ mg/kg}$ bw/dayLiverEOECD 412 $200 \text{ mg/kg}$ bw/dayLiverEOECD 412 $147 \text{ mg/m}^3$ air DECD 412LungsAuailableIntercentIntercenttoxicityOECD 473CHL/IU cellOECD 476Chinese haOUTOECD 471Bacteria (S.	Method       Value       Organ       Effect         L       OECD 422       62.5 mg/kg bw/day       Thymus       Weight reduction         C       Other       100 ppm       Change in urin composition         C       Other       10 ppm       No effect         neg	Immeter       Method       Value       Organ       Effect       Exposure time         L       OECD 422       62.5 mg/kg bw/day       Thymus       Weight reduction       6 weeks (daily) - 8 weeks (daily)         C       Other       100 ppm       Change in urine composition       14 weeks (6h/day, 1 days/week)         CC       Other       10 ppm       No effect       14 weeks (6h/day, 1 days/week)         DE       Method       Value       Organ       Effect       Exposure time         No effect       0ECD 408       600 mg/kg bw/day       Liver       Clinical signs; mortality: body weight; food consumption       92 day(s)         EL       OECD 408       200 mg/kg bw/day       Liver       No effect       92 day(s)         Equivalent to oECD 412       147 mg/m³ air       Lungs       Lesions in arynx, trachea and lung       4 weeks (6h/day, 5 days/week)         available       Method       Test substrate       Effect       Chromosome aberration Chromosome aberration         0ECD 476       Chinese hamster ovary (CHO)       No effect       Chromosome aberration         0ECD 471       Bacteria (S.typhimurium)       No effect	Ineter       Method       Value       Organ       Effect       Exposure time       Species         L       OECD 422       62.5 mg/kg bw/day       Thymus       Weight reduction       6 weeks (daily) - 8 weeks (daily) - 8 weeks (daily) - 8 weeks (daily) - 8 male/female)       Rat (male/female)         C       Other       100 ppm       Change in urine composition       14 weeks (daily) - 8 weeks (daily) - 8 weeks (daily) - 8 weeks (daily) - 8 male/female)       Rat (male/female)         C       Other       10 ppm       Change in urine composition       14 weeks (daily) - 8 weeks (daily) - 8 weeks (daily) - 8 weeks (daily) - 8 male/female)       Rat (male/female)         Dec       Other       10 ppm       Crange in urine inter       Ffect       Exposure time       Species         Method       Value       Organ       Effect       Exposure time (male/female)       Species         LL       OECD 408       600 mg/kg bw/day       Liver       Clinical signs; mortality; body weight; food consumption       92 day(s)       Rat (male/female)         Lut       OECD 408       200 mg/kg bw/day       Liver       No effect       92 day(s)       Rat (male/female)         Lut       DECD 412       147 mg/m³ air       Lungs       Lesions in larynx, trachea and lung       4 weeks (6h/day, 5 days/week)       Rat (male) <td< td=""></td<>

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic	OECD 476	Chinese hamster ovary (CHO)	No effect	Read-across
activation, negative without				
metabolic activation				
Negative with metabolic	OECD 473	Chinese hamster lung	No effect	Read-across
activation, negative without		fibroblasts		
metabolic activation				
Negative with metabolic	OECD 471	Escherichia coli	No effect	Experimental value
activation, negative without				
metabolic activation				
Negative with metabolic	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
activation, negative without				
metabolic activation				

# Mutagenicity (in vivo)

Green Fix

No (test)data on the mixture available trimethoywinylsilane

bstrate Organ Value determination
(male/female) Blood Experimental value
ostrate Organ Value determination
(male/female) Bone marrow Read-across

# Carcinogenicity

<u>Green Fix</u> No (test)data on the mixture available

# 3-(trimethoxysilyl)propylamine

Route of	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value
exposure								determination
Dermal	NOAEL	Not further	43.8 mg/week	104 weeks (3	Mouse	No carcinogenic	Skin	Inconclusive,
		determined		times/week)	(male/female)	effect		insufficient data

# Reproductive toxicity

Green Fix

No (test)data on the mixture available

trimethoxyvinylsilane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determinatio
Developmental toxicity	NOAEL	EPA OTS 798.4350	100 ppm	10 days (6h/day)	Rat (female)	No effect		Experimental value
Maternal toxicity	NOAEL	EPA OTS 798.4350	25 ppm	10 days (6h/day)	Rat (female)	No effect		Experimental value
Effects on fertility	NOAEL (F1)	OECD 422	1000 mg/kg bw/day	6 week(s) - 8 week(s)	Rat (male/female)	No effect		Experimental value
	NOAEL (P)	OECD 422	1000 mg/kg bw/day	8 week(s)	Rat (male)	No effect		Experimental value
	Noael (p)	OECD 422	250	6 week(s)	Rat (female)	No effect		Experimental value
(trimethoxysilyl)propylami	ine							
	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determinatio
Developmental toxicity	NOAEL	EPA OTS 798.4900	100 mg/kg bw/day	14 days (gestation, daily)	Rat	No effect		Read-across
	LOAEL	EPA OTS 798.4900	600 mg/kg bw/day	14 days (gestation, daily)	Rat	Minor skeletal variations	Skeleton	Read-across
Maternal toxicity	NOAEL	Other	100 mg/kg bw/day	14 day(s)	Rat	No effect		Read-across
	LOAEL	Other	600 mg/kg bw/day	14 day(s)	Rat	Clinical signs; mortality; body weight; food consumption	General	Read-across
Effects on fertility	NOAEL	OECD 408	600 mg/kg bw/day	92 day(s)	Rat (male/female)	No effect		Read-across
dgement is based on the r	elevant ingred	ients						
for revision: 2;3					Publication	n date: 2007-08-1	6	
						vision: 2015-11-13		

Product number: 45248

# Conclusion CMR Not classified for carcinogenicity Not classified for reprotoxic or developmental toxicity Not classified for reprotoxic or developmental toxicity Toxicity other effects Green Fix No (test)data on the mixture available Chronic effects from short and long-term exposure Green Fix No effects known. SECTION 12: Ecological information 12.1. Toxicity

Green Fix

No (test)data on the mixture available

trimethoxyvinylsilane

Internovyvintyisilane								
	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		191 mg/l	96 h	Oncorhynchus mykiss		Fresh water	Experimental value; Nominal concentration
Acute toxicity invertebrates	EC50	EU Method C.2	168.7 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	EPA 67014- 73-0	210 mg/l	7 day(s)	Pseudokirchnerie Ila subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
(trimethoxysilyl)propylamine								
	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 934 mg/l	96 h	Danio rerio	Semi-static system	Fresh water	Read-across; GLP
Acute toxicity invertebrates	EC50	OECD 202	331 mg/l	48 h	Daphnia magna	Static system	Fresh water	Read-across; GLP
Toxicity algae and other aquatic plants	EC50	EU Method C.3	> 1000 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Read-across; GLP
Toxicity aquatic micro-	EC50	Other	43 mg/l	5.75 h	Pseudomonas	Static system	Fresh water	Read-across; GLP

putida

Judgement of the mixture is based on the relevant ingredients

### **Conclusion**

organisms

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

# 12.2. Persistence and degradability

12.2. Persistence and degradability				
trimethoxyvinylsilane				
Biodegradation water				
Method	Value	Duration	Value determination	
OECD 301F: Manometric Respirometry Tes	st 51 %; GLP	28 day(s)	Experimental value	
Phototransformation air (DT50 air)				
Method	Value	Conc. OH-radicals	Value determination	
	0.56 day(s)	500000 /cm <sup>3</sup>	Calculated value	
Half-life water (t1/2 water)				
Method	Value	Primary degradation/mineralisation	Value determination	
OECD 111: Hydrolysis as a function of pH	< 2.4 h; pH = 7	Primary degradation	Weight of evidence	
3-(trimethoxysilyl)propylamine				
Biodegradation water				
Method	Value	Duration	Value determination	
EU Method C.4	67 %; GLP	28 day(s)	Experimental value	
Half-life water (t1/2 water)				
Method	Value	Primary degradation/mineralisation	Value determination	
	4 h; pH = 7	Primary degradation	QSAR	
Conclusion Contains non readily biodegradable component	nt(s)			
son for revision: 2;3		Publication date: Date of revision: 2		
sion number: 0200		Product number:	45248	8

# 12.3. Bioaccumulative potential

### Gr L

reen Fix				
Log Kow				
Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			
trimethoxyvinylsilane				
Log Kow				
Method	Remark	Value	Temperature	Value determination
KOWWIN	Calculated	2	20 °C	QSAR
3-(trimethoxysilyl)propylar	<u>nine</u>			
Log Kow				
Method	Remark	Value	Temperature	Value determination
		0.2	20 °C	QSAR
Conclusion				

Contains bioaccumulative component(s)

# 12.4. Mobility in soil

# trimethoxyvinylsilane

Volatility (Henry's Law const	ant H)			
Value	Method	Temperature	Remark	Value determination
8.72E-5 atm m <sup>3</sup> /mol		25 °C		Estimated value

### Conclusion

Contains component(s) with potential for mobility in the soil Contains component(s) that adsorb(s) into the soil

# 12.5. Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

# 12.6. Other adverse effects

### Green Fix

# Global warming potential (GWP)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

# Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

3-(trimethoxysilyl)propylamine

Ground water

Ground water pollutant

# SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

# 13.1. Waste treatment methods

# 13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

08 04 10 (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants other than those mentioned in 08 04 09). Depending on branch of industry and production process, also other waste codes may be applicable. Can be considered as non hazardous waste according to Directive 2008/98/EC.

# 13.1.2 Disposal methods

Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment.

# 13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC). 15 01 02 (plastic packaging).

# SECTION 14: Transport information

Road (ADR) 14.1. UN number			
Transport		Not subject	
14.2. UN proper shipping na 14.3. Transport hazard class			
Hazard identification nu	mber		
Class			
Classification code			
Reason for revision: 2;3		Publication date: 2007-08-16 Date of revision: 2015-11-13	
Revision number: 0200		Product number: 45248 9 / 1	12

5100	n Fix
14.4. Packing group	
Packing group	
Labels	
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions Limited quantities	
Rail (RID)	
14.1. UN number	
Transport	Not subject
14.2. UN proper shipping name 14.3. Transport hazard class(es)	
Hazard identification number	
Class	
Classification code	
14.4. Packing group	
Packing group	
Labels	
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	
Inland waterways (ADN)	
14.1. UN number	
Transport	Not subject
14.2. UN proper shipping name	
14.3. Transport hazard class(es)	
Class Classification code	
14.4. Packing group	
Packing group	
Labels	
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	
Limited quantities	
Sea (IMDG/IMSBC)	
14.1. UN number	
Transport	Not subject
14.2. UN proper shipping name	
14.3. Transport hazard class(es)	
Class	
14.4. Packing group	
14.4. Packing group Packing group	
14.4. Packing group Packing group Labels	
14.4. Packing group Packing group	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number         Transport	Not subject
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number         Transport         14.2. UN proper shipping name	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number         Transport         14.2. UN proper shipping name         14.3. Transport hazard class(es)	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number         Transport         14.2. UN proper shipping name         14.3. Transport hazard class(es)         Class	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number         Transport         14.2. UN proper shipping name         14.3. Transport hazard class(es)         Class         14.4. Packing group	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number         Transport         14.2. UN proper shipping name         14.3. Transport hazard class(es)         Class         14.4. Packing group         Packing group	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number         Transport         14.2. UN proper shipping name         14.3. Transport hazard class(es)         Class         14.4. Packing group	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number         Transport         14.2. UN proper shipping name         14.3. Transport hazard class(es)         Class         14.4. Packing group         Packing group	
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number         [Transport         14.2. UN proper shipping name         14.3. Transport hazard class(es)         [Class         14.4. Packing group         Packing group         Labels	Image:
14.4. Packing group         Packing group         Labels         14.5. Environmental hazards         Marine pollutant         Environmentally hazardous substance mark         14.6. Special precautions for user         Special provisions         Limited quantities         14.7. Transport in bulk according to Annex II of Marpol and the IBC Code         Annex II of MARPOL 73/78         Air (ICAO-TI/IATA-DGR)         14.1. UN number         Transport         14.2. UN proper shipping name         14.3. Transport hazard class(es)         Class         14.4. Packing group         Packing group         Labels	Not subject Publication date: 2007-08-16

	Gree	n Fix
14.5. Environmental hazards		
Environmentally hazardous	substance mark	no
14.6. Special precautions for use		
Special provisions		
	<mark>ort: limited quantities: maximum n</mark> et quantity	
per packaging		
ION 15: Regulator	y information	
		specific for the substance or mixture
	5 5	
European legislation:		
VOC content Directive 2010/7	5/EU	
VOC content		Remark
< 5.485 %		
< 76.5706 g/l		
REACH Annex XVII - Restricti	on	
Contains component(s) s	subject to restrictions of Annex XVII of Regula	tion (EC) No 1907/2006: restrictions on the manufacture, placing on the marke
	rous substances, mixtures and articles.	
imethoxyvinylsilane (trimethoxysilyl)propylamine	and 2, 2.14 categories 1 and 2, 2.15 types A to F: (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	<ol> <li>Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even wi ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304,4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).5. Without prejudice to the implementation of othet Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibil legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lung damage"; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public a legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010 No later than 1 June 2014, the Commission shall request the European Chemicals Agency prepare a dossier, in</li></ol>
imethoxyvinylsilane	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	<ol> <li>Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:         <ul> <li>metallic glitter intended mainly for decoration,</li> <li>artificial snow and frost,</li> <li>"whoopee" cushions,</li> <li>silly string aerosols,</li> <li>imitation excrement,</li> <li>horns for parties,</li> <li>decorative flakes and foams,</li> <li>artificial cobwebs,</li> <li>stink bombs.2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is market visibly, legibly and indelibly with:</li> <li>"For professional users only". 3. By way of derogation, paragraphs 1 and 2 shall not apply: the aerosol dispensers referred to in paragraphs 1 and 2 shall not apply: the aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.</li> </ul> </li> </ol>
National legislation The Nether Green Fix		
Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category (	5
Waterbezwaarlijkheid	1	
n for revision: 2;3		Publication date: 2007-08-16
n for revision: 2;3		Publication date: 2007-08-16 Date of revision: 2015-11-13

National legislation German	ny		
Green Fix WGK	1. Classification water pollutin	g based on the components in compliance with Verwaltungsvorschrift wasserge	efährdender
	Stoffe (VwVwS) of 27 July 2005		Sidill dolladi
trimethoxyvinylsilane TA-Luft	5.2.5		1
<u>3-(trimethoxysilyl)propy</u>			
TA-Luft	5.2.5		
National legislation France			
<u>Green Fix</u> No data available			
National legislation Belgiun	<u>n</u>		
<u>Green Fix</u> No data available			
Other relevant data			
<u>Green Fix</u> No data available			
15.2. Chemical safety as No chemical safety asse			
5			
SECTION 16: Other ir			
	ts referred to under headings 2 and 3:		
H226 Flammable liquid H315 Causes skin irrita			
H318 Causes serious ey	5		
H332 Harmful if inhaled (*) = INTERNAL CLASSIFI			
	tent, bioaccumulative and toxic substar	nces	
CLP (EU-GHS) Classific	ation, labelling and packaging (Globally	/Harmonised System in Europe)	
		amples provided to BIG. The sheet was written to the best of our ability and ac	
		stitutes a guideline for the safe handling, use, consumption, storage, transport	
		Int 1. New safety data sheets are written from time to time. Only the most rece d otherwise word for word on the safety data sheet, the information does not a	
		ther substances or in processes. The safety data sheet offers no quality specific.	
substances/preparation	s/mixtures in question. Compliance wit	h the instructions in this safety data sheet does not release the user from the o	bligation to
		recommendations or which are necessary and/or useful based on the real appli- tiveness of the information provided and cannot be held liable for any changes	
		opean Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside	
at your own risk. Use of	this safety data sheet is subject to the	licence and liability limiting conditions as stated in your BIG licence agreement of	or when this is
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Reason for revision: 2;3		Publication date: 2007-08-16	
/-		Date of revision: 2015-11-13	
Revision number: 0200		Product number: 45248	12/12