SAFETY DATA SHEET

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

NOVAIRCO STOP

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

1.1. Product identifier

Product name : NOVAIRCO STOP
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

Sealing compound

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

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
🖷 +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
🖷 +32 14 85 97 38
info@tec7.be

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

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Aerosol	category 1	H222: Extremely flammable aerosol.
Aerosol	category 1	H229: Pressurised container: May burst if heated.
Skin Sens.	category 1	H317: May cause an allergic skin reaction.
STOT SE	category 1	H370: Causes damage to organs (central nervous system, eyes (blindness)).
Acute Tox.	category 4	H332: Harmful if inhaled.
Acute Tox.	category 4	H302: Harmful if swallowed.
STOT RE	category 2	H373: May cause damage to organs (bladder) through prolonged or repeated exposure if swallowed.
Eye Dam.	category 1	H318: Causes serious eye damage.

2.2. Label elements

Contains: methanol; trimethoxyvinylsilane; N-(3-(trimethoxysilyl)propyl)ethylenediamine; N,N'-bis[3-(trimethoxysilyl)propyl]ethylenediamine.

Signal word Danger

H-statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H317 May cause an allergic skin reaction.
H370 Causes damage to organs (central nervous system, eyes (blindness)).

H302 + H332	Harmful if swallowed or if inhaled.
H373	May cause damage to organs (bladder) through prolonged or repeated exposure if swallowed.
H318	Causes serious eye damage.

P-statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P280	Wear protective gloves, protective clothing and eye protection/face protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

2.3. Other hazards

Gas/vapour spreads at floor level: ignition hazard

Contains component(s) included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
methanol 01-2119433307-44	67-56-1 200-659-6	10%<C<15%	Flam. Liq. 2; H225 Acute Tox. 3; H331 Acute Tox. 3; H311 Acute Tox. 3; H301 STOT SE 1; H370	(1)(2)(8)(10)	Constituent
polyalkylene glycol	9038-95-3	10%<C<15%	Acute Tox. 4; H302	(1)	Constituent
trimethoxyvinylsilane 01-2119513215-52	2768-02-7 220-449-8	10%<C<15%	Flam. Liq. 3; H226 Acute Tox. 4; H332 STOT RE 2; H373	(1)(10)	Constituent
N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3 217-164-6	5%<C<10%	Skin Sens. 1; H317 Eye Dam. 1; H318	(1)(10)	Constituent
N,N'-bis[3-(trimethoxysilyl)propyl]ethylenediamine	68845-16-9 272-453-4	1%<C<5%	Eye Dam. 1; H318	(1)	Constituent
dichloromethane 01-2119480404-41	75-09-2 200-838-9	C<1 %	Carc. 2; H351	(1)(2)(10)	Constituent
norflurane 01-2119459374-33	811-97-2 212-377-0	70%<C<90%	Press. Gas - Liquefied gas; H280	(1)(2)	Propellant

(1) For H-statements in full: see heading 16

(2) Substance with a Community workplace exposure limit

(8) Specific concentration limits, see heading 16

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

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:

Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.

After eye contact:

Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist.

After ingestion:

Rinse mouth with water. Do not induce vomiting. 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:

Slight irritation. EXPOSURE TO HIGH CONCENTRATIONS: Dizziness. Nausea. Narcosis.

After skin contact:

No effects known.

After eye contact:
Corrosion of the eye tissue.
After ingestion:
Abdominal pain. Nausea. Vomiting. Headache. Dizziness.

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:
Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher.
5.1.2 Unsuitable extinguishing media:
Small fire: Quick-acting CO2 extinguisher, Water (water can be used to control jet flame), Foam.
Major fire: Water (water can be used to control jet flame), Foam.

5.2. Special hazards arising from the substance or mixture
Upon combustion CO and CO2 are formed (carbon monoxide - carbon dioxide). Pressurised container: May burst if heated.

5.3. Advice for firefighters
5.3.1 Instructions:
If exposed to fire cool the closed containers by spraying with water. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistant risk of physical explosion.
5.3.2 Special protective equipment for fire-fighters:
Gloves. Protective goggles. Head/neck protection. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment.
6.1.1 Protective equipment for non-emergency personnel
See heading 8.2
6.1.2 Protective equipment for emergency responders
Gloves. Protective goggles. Head/neck protection. Protective clothing.
Suitable protective clothing
See heading 8.2

6.2. Environmental precautions
Dam up the liquid spill.

6.3. Methods and material for containment and cleaning up
Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with a soap solution. Take collected spill to manufacturer/competent authority. 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
Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe very strict hygiene - avoid contact.

7.2. Conditions for safe storage, including any incompatibilities
7.2.1 Safe storage requirements:
Storage temperature: < 50 °C. Store in a cool area. Store in a dry area. Keep out of direct sunlight. Keep container in a well-ventilated place. Fireproof storeroom. Meet the legal requirements.
7.2.2 Keep away from:
Heat sources, ignition sources, oxidizing agents.
7.2.3 Suitable packaging material:
Aerosol.
7.2.4 Non suitable packaging material:
No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

EU

Methanol	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	200 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	260 mg/m³
Methylene chloride; Dichloromethane	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	100 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	353 mg/m³
	Short time value (Indicative occupational exposure limit value)	200 ppm
	Short time value (Indicative occupational exposure limit value)	706 mg/m³

Belgium

Alcool méthylique	Time-weighted average exposure limit 8 h	200 ppm
	Time-weighted average exposure limit 8 h	266 mg/m³
	Short time value	250 ppm
	Short time value	333 mg/m³
Chlorure de méthylène	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	177 mg/m³

The Netherlands

Methanol	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	100 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	133 mg/m³

France

Dichlorométhane	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	50 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	178 mg/m³
	Short time value (VRC: Valeur réglementaire contraignante)	100 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	356 mg/m³
Methanol	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	200 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	260 mg/m³
	Short time value (VL: Valeur non réglementaire indicative)	1000 ppm
	Short time value (VL: Valeur non réglementaire indicative)	1300 mg/m³

Germany

Dichlormethan	Time-weighted average exposure limit 8 h (TRGS 900)	50 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	180 mg/m³
Methanol	Time-weighted average exposure limit 8 h (TRGS 900)	200 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	270 mg/m³
Norfluran	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	4200 mg/m³

UK

1,1,1,2-Tetrafluoroethane (HFC 134a)	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1000 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4240 mg/m³
Dichloromethane	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	100 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	350 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	300 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1060 mg/m³
Methanol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	200 ppm

Methanol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	266 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	250 ppm
	Short time value (Workplace exposure limit (EH40/2005))	333 mg/m³

USA (TLV-ACGIH)

Dichloromethane (Methylene chloride)	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	50 ppm
Methanol	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	200 ppm
	Short time value (TLV - Adopted Value)	250 ppm

b) National biological limit values

If limit values are applicable and available these will be listed below.

Germany

Dichlormethan (Dichlormethan)	Vollblut: unmittelbar nach exposition	500 µg/l	11/2016 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG
Methanol (Methanol)	Urin: bei langzeitexposition: am schichtende nach mehreren vorangegangenen schichten expositionsende, bzw. schichtende	30 mg/l	11/2012 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG

UK

Dichloromethane (carbon monoxide)	End-tidal breath: post shift	30 ppm	

USA (BEI-ACGIH)

Dichloromethane (Dichloromethane)	urine: end of shift	0,3 mg/L	
Methanol (Methanol)	Urine: end of shift	15 mg/L	
Methemoglobin inducers (Methemoglobin)	Blood: during or end of shift	1,5 % of hemoglobin	

8.1.2 Sampling methods

Product name	Test	Number
Methanol (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
Methanol (Volatile Organic compounds)	NIOSH	2549
Methyl Alcohol (Methanol)	NIOSH	2000
Methyl Alcohol	OSHA	91
Methylene chloride (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
Methylene chloride (Volatile Organic compounds)	NIOSH	2549
Methylene Chloride	NIOSH	1005
Methylene Chloride	OSHA	59
Methylene Chloride	OSHA	80

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL/DMEL - Workers

methanol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	260 mg/m³	
	Acute systemic effects inhalation	260 mg/m³	
	Long-term local effects inhalation	260 mg/m³	
	Acute local effects inhalation	260 mg/m³	
	Long-term systemic effects dermal	40 mg/kg bw/day	
	Acute systemic effects dermal	40 mg/kg bw/day	

trimethoxyvinylsilane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.6 mg/m³	
	Acute systemic effects inhalation	2.6 mg/m³	
	Long-term systemic effects dermal	0.2 mg/kg bw/day	
	Acute systemic effects dermal	0.2 mg/kg bw/day	

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	36.3 mg/m³	
	Acute systemic effects inhalation	35.3 mg/m³	
	Long-term systemic effects dermal	5 mg/kg bw/day	
	Acute systemic effects dermal	5 mg/kg bw/day	

dichloromethane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	353 mg/m³	
	Acute systemic effects inhalation	706 mg/m³	
	Long-term systemic effects dermal	12 mg/kg bw/day	

DNEL/DMEL - General population

methanol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	50 mg/m³	
	Acute systemic effects inhalation	50 mg/m³	
	Long-term local effects inhalation	50 mg/m³	
	Acute local effects inhalation	50 mg/m³	
	Long-term systemic effects dermal	8 mg/kg bw/day	
	Acute systemic effects dermal	8 mg/kg bw/day	
	Long-term systemic effects oral	8 mg/kg bw/day	
	Acute systemic effects oral	8 mg/kg bw/day	
	Long-term systemic effects oral	8 mg/kg bw/day	
	Acute systemic effects oral	8 mg/kg bw/day	

trimethoxyvinylsilane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.7 mg/m³	
	Acute systemic effects inhalation	0.7 mg/m³	
	Long-term systemic effects dermal	0.1 mg/kg bw/day	
	Acute systemic effects dermal	0.1 mg/kg bw/day	
	Long-term systemic effects oral	0.1 mg/kg bw/day	

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	8.7 mg/m³	
	Acute systemic effects inhalation	8.7 mg/m³	
	Long-term systemic effects dermal	2.5 mg/kg bw/day	
	Acute systemic effects dermal	17 mg/kg bw/day	
	Long-term systemic effects oral	2.5 mg/kg bw/day	

dichloromethane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	88.3 mg/m³	
	Acute systemic effects inhalation	353 mg/m³	
	Long-term systemic effects dermal	5.82 mg/kg bw/day	
	Long-term systemic effects oral	0.06 mg/kg bw/day	

PNEC

methanol

Compartments	Value	Remark
Fresh water	20.8 mg/l	
Marine water	2.08 mg/l	
Aqua (intermittent releases)	1540 mg/l	
STP	100 mg/l	
Fresh water sediment	77 mg/kg sediment dw	
Marine water sediment	7.7 mg/kg sediment dw	
Soil	100 mg/kg soil dw	

trimethoxyvinylsilane

Compartments	Value	Remark
Fresh water	0.36 mg/l	
Aqua (intermittent releases)	2.4 mg/l	
Marine water	0.036 mg/l	
STP	6.6 mg/l	
Fresh water sediment	1.3 mg/kg sediment dw	
Marine water sediment	0.13 mg/kg sediment dw	
Soil	0.055 mg/kg soil dw	

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Compartments	Value	Remark
Fresh water	0.062 mg/l	
Marine water	0.006 mg/l	
Aqua (intermittent releases)	0.62 mg/l	
STP	25 mg/l	
Fresh water sediment	0.22 mg/kg sediment dw	
Marine water sediment	0.022 mg/kg sediment dw	
Soil	0.009 mg/kg soil dw	

dichloromethane

Compartments	Value	Remark
Fresh water	0.31 mg/l	
Marine water	0.031 mg/l	
Aqua (intermittent releases)	0.27 mg/l	
STP	26 mg/l	
Fresh water sediment	2.57 mg/kg sediment dw	
Marine water sediment	0.26 mg/kg sediment dw	
Soil	0.33 mg/kg soil dw	

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

Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly.

8.2.2 Individual protection measures, such as personal protective equipment

Observe very strict hygiene - avoid contact. Do not eat, drink or smoke during work.

a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

b) Hand protection:

Gloves.

c) Eye protection:

Protective goggles.

d) Skin protection:

Head/neck 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	Aerosol
Odour	Ether-like odour
Odour threshold	No data available
Colour	Red
Particle size	No data available
Explosion limits	No data available
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Vapour pressure	4268 mm Hg ; 20 °C
Solubility	Water ; insoluble
Relative density	0.99 ; Liquid
Decomposition temperature	No data available
Auto-ignition temperature	350 °C
Flash point	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

9.2. Other information

Absolute density	994 kg/m³ ; Liquid

SECTION 10: Stability and reactivity

10.1. Reactivity

May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.

10.2. Chemical stability

Unstable on exposure to heat.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Upon combustion CO and CO2 are formed (carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

NOVAIRCO STOP

No (test)data on the mixture available

Classification is based on the relevant ingredients

methanol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral			category 3			Annex VI	
Oral	LD50	BASF test	1187 mg/kg bw - 2769 mg/kg bw		Rat (male/female)	Weight of evidence	
Dermal			category 3			Annex VI	
Dermal	LD50		17100 mg/kg		Rabbit	Inconclusive, insufficient data	
Inhalation (vapours)			category 3			Annex VI	
Inhalation (vapours)	LC50	BASF test	128.2 mg/l air	4 h	Rat (male/female)	Weight of evidence	

trimethoxyvinylsilane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	7120 mg/kg bw - 7236 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	3259 mg/kg bw - 3880 mg/kg bw	24 h	Rabbit (female)	Converted value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	16.8 mg/l	4 h	Rat (male/female)	Experimental value	

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	EPA OPPTS 870.1100	2295 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	EPA OPPTS 870.7600	> 2000 mg/kg bw	24 h	Rabbit (male/female)	Experimental value	
Inhalation (aerosol)	LC50	EPA OPPTS 870.1300	1.49 mg/l - 2.44 mg/l	4 h	Rat (male/female)	Experimental value	

Because of certain conditions of use, acute inhalation toxicity is relevant

dichloromethane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	> 2000 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male/female)	Experimental value	
Inhalation (vapours)	LC50		49 mg/l	7 h	Mouse	Experimental value	

Conclusion

Harmful if swallowed.

Harmful if inhaled.

Not classified as acute toxic in contact with skin

Corrosion/irritation

NOVAIRCO STOP

No (test)data on the mixture available

Classification is based on the relevant ingredients

methanol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	BASF test		1; 24 hours	Rabbit	Experimental value	Single treatment without rinsing
Skin	Not irritating	BASF test	20 h	48; 72 hours	Rabbit	Experimental value	

trimethoxyvinylsilane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405	24 h	1; 24; 48; 72 hours	Rabbit	Experimental value	
Skin	Not irritating		24 h	24; 48; 72 hours	Rabbit	Experimental value	

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	OECD 405	21 day(s)	24; 48; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	EPA OPPTS 870.2500	4 h	24; 48; 72 hours	Rabbit	Experimental value	

N,N'-bis[3-(trimethoxysilyl)propyl]ethylenediamine

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage; category 1					Literature study	

dichloromethane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating				Rabbit	Experimental value	Single treatment
Skin	Irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

Classification of this substance is debatable as it does not correspond to the conclusion from the test

Conclusion

Causes serious eye damage.

Not classified as irritating to the skin

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

NOVAIRCO STOP

No (test)data on the mixture available

Classification is based on the relevant ingredients

methanol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406		24; 48; 72 hours	Guinea pig (female)	Experimental value	

trimethoxyvinylsilane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406		24; 48 hours	Guinea pig (male/female)	Experimental value	

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 406		24; 48 hours	Guinea pig (male/female)	Experimental value	

dichloromethane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 429			Mouse (female)	Experimental value	

Conclusion

May cause an allergic skin reaction.
Not classified as sensitizing for inhalation

Specific target organ toxicity

NOVAIRCO STOP

No (test)data on the mixture available

Classification is based on the relevant ingredients

methanol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral		Incident			Visual disturbances to permanent blindness		Human	Literature study
Oral	Dose level		500 mg/kg	Eyelid	Impairment of the nervous system	1.5 day(s) - 6 day(s)	Monkey (male)	Experimental value
Dermal		Incident			Visual disturbances to permanent blindness		Human	Literature study
Inhalation		Incident			Visual disturbances to permanent blindness		Human	Literature study

trimethoxyvinylsilane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	LOAEL	OECD 422	62.5 mg/kg bw/day	Bladder	Histopathological changes	6 weeks (daily) - 8 weeks (daily)	Rat (male)	Experimental value
Inhalation (vapours)	NOAEC	Subchronic toxicity test	10 ppm		No effect	14 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 422	500 mg/kg bw/day		No effect	28 day(s)	Rat (male/female)	Experimental value
Dermal	NOAEL	Subacute toxicity test	≥ 1545 mg/kg bw/day		No effect	11 day(s)	Rat (male/female)	Experimental value
Inhalation								Data waiving

dichloromethane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	Equivalent to OECD 453	6 mg/kg bw/day	Blood; liver	No effect	104 weeks (daily)	Rat (male/female)	Experimental value
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 453	200 ppm	Liver	No effect	104 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

Conclusion

Causes damage to organs (central nervous system, eyes (blindness)).
May cause damage to organs (bladder) through prolonged or repeated exposure if swallowed.

Mutagenicity (in vitro)

NOVAIRCO STOP

No (test)data on the mixture available

methanol

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster lung fibroblasts (V79)	No effect	Experimental value

trimethoxyvinylsilane

Result	Method	Test substrate	Effect	Value determination
Positive with metabolic activation, positive without metabolic activation	OECD 473	CHL/IU cells	Chromosome aberrations	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value

dichloromethane

Result	Method	Test substrate	Effect	Value determination
Positive	Equivalent to OECD 473	Chinese hamster ovary (CHO)	Chromosome aberrations	Experimental value
Positive	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value

Mutagenicity (in vivo)

NOVAIRCO STOP

No (test)data on the mixture available

Judgement is based on the relevant ingredients

methanol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474	5 days (6h/day)	Mouse (male)		Experimental value

trimethoxyvinylsilane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	EPA 560/6-83-001		Mouse (male/female)		Experimental value

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 474	30 h - 72 h	Mouse (male/female)		Experimental value

dichloromethane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474		Mouse (male/female)		Experimental value

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

NOVAIRCO STOP

No (test)data on the mixture available

Judgement is based on the relevant ingredients

methanol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 453	≥ 1.3 mg/l air	24 months (daily, 20h/day)	Rat (male/female)	No effect		Experimental value

dichloromethane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	2000 ppm	102 weeks (6h/day, 5 days/week)	Rat (male)	No carcinogenic effect		Experimental value
Inhalation (vapours)	LOAEC	Equivalent to OECD 451	1000 ppm	102 weeks (6h/day, 5 days/week)	Rat (female)	Tumor formation	Mammary gland	Experimental value

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

NOVAIRCO STOP

No (test)data on the mixture available

Judgement is based on the relevant ingredients

methanol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	Equivalent to OECD 414	1.33 mg/kg bw/day	11 days (gestation, daily)	Rat (female)	No effect		Experimental value
Maternal toxicity	NOAEC	Equivalent to OECD 414	1.33 mg/kg bw/day	11 days (gestation, daily)	Rat (female)	No effect		Weight of evidence
Effects on fertility	NOAEC (P)		2.39 mg/l air	355 days (2.5h/day)	Monkey (female)	No effect		Weight of evidence
	LOAEL (F2)	Equivalent to OECD 416	1.3 mg/l air	54 day(s) - 56 day(s)	Rat (male/female)	Reproductive performance		Weight of evidence

trimethoxyvinylsilane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEL	EPA OTS 798.4350	100 ppm	10 days (gestation, 6h/day)	Rat (female)	No effect		Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEL	EPA OTS 798.4350	25 ppm	10 days (gestation, 6h/day)	Rat (female)	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL (P)	OECD 422	1000 mg/kg bw/day	≤ 43 day(s)	Rat (male)	No effect		Experimental value

N-(3-(trimethoxysilyl)propyl)ethylenediamine

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	750 mg/kg bw/day	14 day(s)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	750 mg/kg bw/day	14 day(s)	Rat	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL	Equivalent to OECD 422	≥ 500 mg/kg bw/day		Rat (male/female)	No effect		Experimental value

dichloromethane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	LOAEC	Equivalent to OECD 414	1226 ppm	10 day(s)	Rat	Minor skeletal variations	Foetus	Experimental value
Maternal toxicity	LOAEC	Equivalent to OECD 414	1226 ppm	10 day(s)	Rat	Methemoglobinemia	Blood	Experimental value
Effects on fertility	NOAEC	Equivalent to OECD 416	≥ 1500 ppm	14 weeks (6h/day, 5 days/week)	Rat (male/female)	No effect		Experimental value

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

NOVAIRCO STOP

No (test)data on the mixture available

methanol

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
LDL0		4000 mg/kg bw		Mortality		Monkey (male/female)	Experimental value

Chronic effects from short and long-term exposure

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ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation.

SECTION 12: Ecological information

12.1. Toxicity

NOVAIRCO STOP

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

methanol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA 660/3 - 75/009	15400 mg/l	96 h	Lepomis macrochirus	Flow-through system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	OECD 202	18260 mg/l	96 h	Daphnia magna	Semi-static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	22000 mg/l	96 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value
Long-term toxicity fish	EC50		14536 mg/l	200 h	Oryzias latipes	Static system	Fresh water	Experimental value
Long-term toxicity aquatic crustacea	NOEC		208 mg/l	21 day(s)	Daphnia magna			QSAR; Reproduction
Toxicity aquatic micro-organisms	IC50	OECD 209	> 1000 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; Growth inhibition
	EC0		6600 mg/l	16 h	Pseudomonas putida			Literature

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity terrestrial plants	EC50		60 mol/l	7 day(s)	Triticum aestivum	Weight of evidence

trimethoxyvinylsilane

	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 crustacea	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)	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC	OECD 211	28.1 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP

N-(3-(trimethoxysilyl)propyl)ethylenediamine

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EU Method C.1	597 mg/l	96 h	Danio rerio	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	EU Method C.2	81 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	8.8 mg/l	72 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value; GLP
	NOEC	OECD 201	3.1 mg/l	72 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC		≥ 1 ppm	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	EC50	DIN 38412-8	67 mg/l	16 h	Pseudomonas putida	Static system	Fresh water	Experimental value; GLP

dichloromethane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		193 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value
Acute toxicity crustacea	EC50		168.2 mg/l	48 h	Daphnia magna			
	LC50	EPA 660/3 - 75/009	27 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	EC50		> 660 mg/l	96 h	Selenastrum capricornutum			Growth rate
Long-term toxicity fish	NOEC	ASTM	142 mg/l	28 day(s)	Pimephales promelas	Flow-through system	Fresh water	Experimental value
Toxicity aquatic micro-organisms			315 mg/l	24 h				
	EC50	OECD 209	2590 mg/l	40 minutes	Activated sludge	Static system	Fresh water	Experimental value

Conclusion

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

12.2. Persistence and degradability

methanol

Biodegradation water

Method	Value	Duration	Value determination
	95 % - 97 %; Oxygen consumption	20 day(s)	Experimental value

Biodegradation soil

Method	Value	Duration	Value determination
	46.3 % - 53.4 %	5 day(s)	Experimental value

trimethoxyvinylsilane

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	51 %; GLP	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	0.56 day(s)	500000 /cm³	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

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Biodegradation water

Method	Value	Duration	Value determination
EU Method C.4	39 %; Activated sludge	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.91	1.059 h		Calculated value

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
OECD 111: Hydrolysis as a function of pH	0.025 h; pH = 7	Primary degradation	Experimental value

dichloromethane

Biodegradation water

Method	Value	Duration	Value determination
OECD 301C: Modified MITI Test (I)	5 % - 26 %	28 day(s)	Experimental value
OECD 301D: Closed Bottle Test	68 %; GLP	28 day(s)	Experimental value

Conclusion

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

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Log Kow

Method	Remark	Value	Temperature	Value determination

	Not applicable (mixture)			

methanol

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		1 - 4.5	72 h	Cyprinus carpio	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
		-0.77		Experimental value

trimethoxyvinylsilane

Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN	Calculated	-2	20 °C	QSAR

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Log Kow

Method	Remark	Value	Temperature	Value determination
		-0.3	20 °C	QSAR

dichloromethane

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	2 - 40; GLP	6 week(s)	Cyprinus carpio	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		1.25	20 °C	Experimental value

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

methanol

(log) Koc

Parameter	Method	Value	Value determination
Koc		0.13 - 0.61	Experimental value
log Koc		-0.89 - -0.21	Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	12.5 %	0 %	0 %	0 %	87.5 %	Calculated value

trimethoxyvinylsilane

(log) Koc

Parameter	Method	Value	Value determination
			Data waiving

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
8.72E-5 atm m³/mol		25 °C		Estimated value

dichloromethane

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	43.8 %			11 %	45 %	Calculated 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

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

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Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Contains component(s) 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)

methanol

Groundwater

Groundwater pollutant

dichloromethane

Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Included in the list of substances which may contribute to the greenhouse effect (IPCC)

Groundwater

Groundwater pollutant

norflurane

Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Fluorinated greenhouse gases	Lifetime	Radiative efficiency	SAR‡ (100-yr)	Global warming potential (GWP)	GWP 500-yr time horizon
HFC-134a				1430	

Included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

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

European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
08 04 09* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Recycle/reuse. Specific treatment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

UN number	1950

14.2. UN proper shipping name

Proper shipping name	Aerosols

14.3. Transport hazard class(es)

Hazard identification number	
Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Rail (RID)

14.1. UN number

UN number	1950

14.2. UN proper shipping name

Proper shipping name	Aerosols

14.3. Transport hazard class(es)

Hazard identification number	23
Class	2
Classification code	5F

14.4. Packing group

Packing group	

Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Inland waterways (ADN)

14.1. UN number

UN number	1950

14.2. UN proper shipping name

Proper shipping name	Aerosols

14.3. Transport hazard class(es)

Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Sea (IMDG/IMSBC)

14.1. UN number

UN number	1950

14.2. UN proper shipping name

Proper shipping name	Aerosols

14.3. Transport hazard class(es)

Class	2.1

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	63
Special provisions	190
Special provisions	277
Special provisions	327
Special provisions	344
Special provisions	381
Special provisions	959
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Annex II of MARPOL 73/78	Not applicable

Air (ICAO-TI/IATA-DGR)

14.1. UN number

UN number	1950

14.2. UN proper shipping name

Proper shipping name	Aerosols, flammable

14.3. Transport hazard class(es)

Class	2.1

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	A145
Special provisions	A167
Special provisions	A802
Limited quantities: maximum net quantity per packaging	30 kg G

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
> 96 %	

Indicative occupational exposure limit values (Directive 98/24/EC, 2000/39/EC and 2009/161/EU)

Product name	Skin resorption
Methylene chloride; Dichloromethane	Skin
Methanol	Skin

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· methanol · trimethoxyvinylsilane · N-(3-(trimethoxysilyl)propyl) ethylenediamine · dichloromethane	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 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.	1. 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 with 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 other 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 visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of 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 are 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. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public. 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.’
· methanol · trimethoxyvinylsilane	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.	1. 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: — metallic glitter intended mainly for decoration, — artificial snow and frost, — “whoopee” cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — 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 marked visibly, legibly and indelibly with: “For professional users only”.

		3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC. 4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.
· dichloromethane	Dichloromethane	1. Paint strippers containing dichloromethane in a concentration equal to or greater than 0,1 % by weight shall not be: a) placed on the market for the first time for supply to the general public or to professionals after 6 December 2010; b) placed on the market for supply to the general public or to professionals after 6 December 2011; c) used by professionals after 6 June 2012. For the purposes of this entry: i) “professional” means any natural or legal person, including workers and self-employed workers undertaking paint stripping in the course of their professional activity outside an industrial installation; ii) “industrial installation” means a facility used for paint stripping activities. 2. By way of derogation from paragraph 1, Member States may allow on their territories and for certain activities the use, by specifically trained professionals, of paint strippers containing dichloromethane and may allow the placing on the market of such paint strippers for supply to those professionals. Member States making use of this derogation shall define appropriate provisions for the protection of the health and safety of those professionals using paint strippers containing dichloromethane and shall inform the Commission thereof. Those provisions shall include a requirement that a professional shall hold a certificate that is accepted by the Member State in which that professional operates, or provide other documentary evidence to that effect, or be otherwise approved by that Member State, so as to demonstrate proper training and competence to safely use paint strippers containing dichloromethane. The Commission shall prepare a list of the Member States which have made use of the derogation in this paragraph and make it publicly available over the Internet. 3. A professional benefiting from the derogation referred to in paragraph 2 shall operate only in Member States which have made use of that derogation. The training referred to in paragraph 2 shall cover as a minimum: (a) awareness, evaluation and management of risks to health, including information on existing substitutes or processes, which under their conditions of use are less hazardous to the health and safety of workers; (b) use of adequate ventilation; (c) use of appropriate personal protective equipment that complies with Directive 89/686/EEC. Employers and self-employed workers shall preferably replace dichloromethane with a chemical agent or process which, under its conditions of use, presents no risk, or a lower risk, to the health and safety of workers. Professional shall apply all relevant safety measures in practice, including the use of personal protective equipment. 4. Without prejudice to other Community legislation on workers protection, paint strippers containing dichloromethane in concentrations equal to or greater than 0,1 % by weight may be used in industrial installations only if the following minimum conditions are met: (a) effective ventilation in all processing areas, in particular for the wet processing and the drying of stripped articles: local exhaust ventilation at strip tanks supplemented by forced ventilation in those areas, so as to minimise exposure and to ensure compliance, where technically feasible, with relevant occupational exposure limits; (b) measures to minimise evaporation from strip tanks comprising: lids for covering strip tanks except during loading and unloading; suitable loading and unloading arrangements for strip tanks; and wash tanks with water or brine to remove excess solvent after unloading; (c) measures for the safe handling of dichloromethane in strip tanks comprising: pumps and pipework for transferring paint stripper to and from strip tanks; and suitable arrangements for safe cleaning of tanks and removal of sludge; (d) personal protective equipment that complies with Directive 89/686/EEC comprising: suitable protective gloves, safety goggles and protective clothing; and appropriate respiratory protective equipment where compliance with relevant occupational exposure limits cannot be otherwise achieved; (e) adequate information, instruction and training for operators in the use of such equipment. 5. Without prejudice to other Community provisions concerning the classification, labelling and packaging of substances and mixtures, by 6 December 2011 paint strippers containing dichloromethane in a concentration equal to or greater than 0,1 % by weight shall be visibly, legibly and indelibly marked as follows: “Restricted to industrial use and to professionals approved in certain EU Member States — verify where use is allowed.”

National legislation Belgium

NOVAIRCO STOP

No data available

methanol

Résorption peau	Alcool méthylique; D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air.

National legislation The Netherlands

NOVAIRCO STOP

Waterbezwaarlijkheid	Z (1)

methanol

Huidopname (wettelijk)	Methanol; H
SZW - Lijst van voor de voortplanting giftige stoffen (ontwikkeling)	Methanol; 1B; May damage the unborn child.

National legislation France

NOVAIRCO STOP

No data available

methanol

Risque de pénétration percutanée	Methanol; PP

dichloromethane

Catégorie cancérogène	Dichlorométhane; C2
Risque de pénétration percutanée	Dichlorométhane; PP

National legislation Germany

NOVAIRCO STOP

WGK	2; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4) and Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) of 18 April 2017

methanol

TA-Luft	5.2.5; I
TRGS900 - Risiko der Fruchtschädigung	Methanol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Hautresorptive Stoffe	Methanol; H; Hautresorptiv

trimethoxyvinylsilane

TA-Luft	5.2.5

N-(3-(trimethoxysilyl)propyl)ethylenediamine

TA-Luft	5.2.5

dichloromethane

TA-Luft	5.2.5; I
TRGS900 - Risiko der Fruchtschädigung	Dichlormethan; Z; Risiko der Fruchtschädigung kann auch bei Einhaltung des AGW und des BGW nicht ausgeschlossen werden.
Hautresorptive Stoffe	Dichlormethan; H; Hautresorptiv

National legislation United Kingdom

NOVAIRCO STOP

No data available

methanol

Skin absorption	Methanol; Sk

dichloromethane

Skin absorption	Dichloromethane; Sk

Other relevant data

NOVAIRCO STOP

No data available

methanol

Skin absorption	Methanol; Skin; Danger of cutaneous absorption

dichloromethane

IARC - classification	2A; Dichloromethane
TLV - Carcinogen	Dichloromethane (Methylene chloride); A3

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

N-(3-(trimethoxysilyl)propyl)ethylenediamine

A chemical safety assessment has been performed.

SECTION 16: Other information

Full text of any H-statements referred to under heading 3:

H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

H331 Toxic if inhaled.
H332 Harmful if inhaled.
H351 Suspected of causing cancer.
H370 Causes damage to organs (central nervous system, eyes (blindness)).
H373 May cause damage to organs (bladder) through prolonged or repeated exposure if swallowed.

(*)	INTERNAL CLASSIFICATION BY BIG
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

Specific concentration limits CLP

methanol	C ≥ 10 %	STOT SE 1; H370	CLP Annex VI (ATP 0)
	3 % ≤ C < 10 %	STOT SE 2; H371	CLP Annex VI (ATP 0)