

# SAFETY DATA SHEET

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



## NOVA TITAN STICK

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

#### 1.1. Product identifier

Product name : NOVA TITAN STICK  
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

Epoxy resin

##### 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@novatech.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
Aquatic Chronic	category 3	H412: Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

Signal word : No signal word  
H-statements : H412 : Harmful to aquatic life with long lasting effects.  
P-statements : P273 : Avoid release to the environment.  
Supplemental information : EUH208 : Contains: epoxy resin (number average molecular weight  $\leq 700$ ); 2-piperazin-1-ylethylamine; triethylenetetramine. May produce an allergic reaction.

#### 2.3. Other hazards

No other hazards known

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

# NOVA TITAN STICK

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )	14807-96-6 238-877-9	25%≤C≤50%		(2)	Constituent
cristobalite sand	14464-46-1 238-455-4	C≤10%		(2)	Constituent
epoxy resin (number average molecular weight ≤ 700) 01-2119456619-26	25068-38-6 500-033-5	C<1%	Skin Sens. 1; H317 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411	(1)(8)(10)	Constituent
2-piperazin-1-ylethylamine 01-2119471486-30	140-31-8 205-411-0	C<1%	Acute Tox. 3; H311 Skin Sens. 1; H317 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	(1)(10)	Constituent
triethylenetetramine	112-24-3 203-950-6	C<1%	Skin Sens. 1; H317 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	(1)(2)(10)	Constituent
phenol 01-2119471329-32	108-95-2 203-632-7	C<1%	Muta. 2; H341 Acute Tox. 3; H331 Acute Tox. 3; H311 Acute Tox. 3; H301 STOT RE 2; H373 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 2; H411	(1)(2)(6)(8)	Constituent

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

(2) Substance with a Community workplace exposure limit

(6) Enumerated in Annex VI of Regulation (EC) No. 1272/2008 but the classification has been adapted after evaluation of available test data

(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:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

#### After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

#### After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.

#### After eye contact:

Rinse immediately with (lukewarm) water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

#### After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

### 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.

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

2 / 17

# NOVA TITAN STICK

## 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, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.  
Major fire: Class B foam (not alcohol-resistant).

#### 5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.  
Major fire: Water; risk of puddle expansion.

### 5.2. Special hazards arising from the substance or mixture

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours.

### 5.3. Advice for firefighters

#### 5.3.1 Instructions:

Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

#### 5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: compressed air apparatus (EN 136 + EN 137).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

#### 6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See heading 8.2

### 6.2. Environmental precautions

Contain released product. Dam up the solid spill. Prevent soil and water pollution. Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

Solid spill: cover with absorbent material. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. 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

Keep away from naked flames/heat. Observe strict hygiene. Remove contaminated clothing immediately. Keep container tightly closed. Do not discharge the waste into the drain.

### 7.2. Conditions for safe storage, including any incompatibilities

#### 7.2.1 Safe storage requirements:

Store in a cool area. Keep out of direct sunlight. Store in a dry area. Keep container in a well-ventilated place. Keep only in the original container. Meet the legal requirements.

#### 7.2.2 Keep away from:

Heat sources, oxidizing agents, (strong) bases.

#### 7.2.3 Suitable packaging material:

No data available

#### 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

Phenol	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	2 ppm
--------	---	-------

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

3 / 17

# NOVA TITAN STICK

Phenol	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	8 mg/m <sup>3</sup>
	Short time value (Indicative occupational exposure limit value)	4 ppm
	Short time value (Indicative occupational exposure limit value)	16 mg/m <sup>3</sup>

## Belgium

Phénol	Time-weighted average exposure limit 8 h	2 ppm
	Time-weighted average exposure limit 8 h	8 mg/m <sup>3</sup>
	Short time value	4 ppm
	Short time value	16 mg/m <sup>3</sup>
Silices cristallines : cristobalite (poussières alvéolaires)	Time-weighted average exposure limit 8 h	0.05 mg/m <sup>3</sup>
Talc (sans fibre d'amiant)	Time-weighted average exposure limit 8 h	2 mg/m <sup>3</sup>

## The Netherlands

Fenol	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	2 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	8 mg/m <sup>3</sup>
Respirabel kristallijn silicstof - cristoballiet	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	0.075 mg/m <sup>3</sup>
Talk (respirabel)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	0.25 mg/m <sup>3</sup>

## France

Phénol	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	2 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	7.8 mg/m <sup>3</sup>
	Short time value (VRC: Valeur réglementaire contraignante)	4 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	15.6 mg/m <sup>3</sup>
Silices cristallines cristobalite, fraction alvéolaire	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	0.05 mg/m <sup>3</sup>

## Germany

Phenol	Time-weighted average exposure limit 8 h (TRGS 900)	2 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	8 mg/m <sup>3</sup>

## UK

Phenol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	2 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	7.8 mg/m <sup>3</sup>
	Short time value (Workplace exposure limit (EH40/2005))	4 ppm
	Short time value (Workplace exposure limit (EH40/2005))	16 mg/m <sup>3</sup>
Silica, respirable crystalline (respirable fraction)	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	0.1 mg/m <sup>3</sup>
Talc, respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1 mg/m <sup>3</sup>

## USA (TLV-ACGIH)

Phenol	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	5 ppm
Silica-Crystalline Cristobalite	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	0.025 mg/m <sup>3</sup> (R)
Talc (containing no asbestos fibers)	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	2 mg/m <sup>3</sup> (R,E)

(R): Respirable fraction

R,E: Respirable fraction. The value is for particulate matter containing no asbestos and < 1% crystalline silica

## b) National biological limit values

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

## Germany

Phenol (Phenol (nach Hydrolyse))	Urin: expositionsende, bzw. schichtende	120 mg/g Kreatinin	5/2013 Scientific Committee on Occupational Exposure Limits der EU
----------------------------------	---	--------------------	--

## USA (BEI-ACGIH)

Methemoglobin inducers (Methemoglobin)	Blood: during or end of shift	1,5 % of hemoglobin	Background, Nonspecific, Semi-quantative
Methemoglobin inducers (Methemoglobin)	Blood: during or end of shift	5 % of hemoglobin	Background, Nonspecific - Intended changes
Phenol (Phenol)	urine: end of shift	250 mg/g creatinine	Background, Nonspecific, With hydrolysis

## 8.1.2 Sampling methods

Product name	Test	Number
Amines, Aliphatic	NIOSH	2010
carbolic acid	NIOSH	3502

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

4 / 17

# NOVA TITAN STICK

Product name	Test	Number
Cristobalite (silica, crystalline, by XRD)	NIOSH	7500
Crystalline Silica	OSHA	ID 142
Phenol (Cresols)	NIOSH	2546
Phenol (Volatile Organic compounds)	NIOSH	2549
phenol	NIOSH	8305
phenol	OSHA	32
Silica, Crystalline	NIOSH	7601
Silica, Crystalline	NIOSH	7602
Triethylene Tetramine	OSHA	60
triethylenetetramine	NIOSH	2540-1
triethylenetetramine	NIOSH	2540-2
triethylenetetramine	NIOSH	2540-teta

## 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 Threshold values

### DNEL/DMEL - Workers

Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.16 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	2.16 mg/m <sup>3</sup>	
	Long-term local effects inhalation	3.6 mg/m <sup>3</sup>	
	Acute local effects inhalation	3.6 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	3.2 mg/kg bw/day	
	Long-term local effects dermal	4.54 mg/cm <sup>2</sup>	

2-piperazin-1-ylethylamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	10.6 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	10.6 mg/m <sup>3</sup>	
	Long-term local effects inhalation	15 µg/m <sup>3</sup>	
	Acute local effects inhalation	80 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	3.33 mg/kg bw/day	

phenol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	8 mg/m <sup>3</sup>	
	Acute local effects inhalation	16 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	1.23 mg/kg bw/day	

### DNEL/DMEL - General population

Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1.08 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	1.08 mg/m <sup>3</sup>	
	Long-term local effects inhalation	1.8 mg/m <sup>3</sup>	
	Acute local effects inhalation	1.8 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	21.6 mg/kg bw/day	
	Long-term local effects dermal	2.27 mg/kg bw/day	
	Long-term systemic effects oral	160 mg/kg bw/day	
	Acute systemic effects oral	160 mg/kg bw/day	

phenol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1.32 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	0.4 mg/kg bw/day	
	Long-term systemic effects oral	0.4 mg/kg bw/day	

### PNEC

Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

Compartments	Value	Remark
Fresh water	597.97 mg/l	
Fresh water (intermittent releases)	597.97 mg/l	
Marine water	141.26 mg/l	
Marine water (intermittent releases)	141.26 mg/l	
Fresh water sediment	31.33 mg/kg sediment dw	
Marine water sediment	3.13 mg/kg sediment dw	
Air	10 mg/m <sup>3</sup>	

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

5 / 17

# NOVA TITAN STICK

## 2-piperazin-1-ylethylamine

Compartment	Value	Remark
Fresh water	0.058 mg/l	
Marine water	0.006 mg/l	
Fresh water (intermittent releases)	0.58 mg/l	
STP	250 mg/l	
Fresh water sediment	215 mg/kg sediment dw	
Marine water sediment	21.5 mg/kg sediment dw	
Soil	1 mg/kg soil dw	

## phenol

Compartment	Value	Remark
Fresh water	0.008 mg/l	
Marine water	0.001 mg/l	
Fresh water (intermittent releases)	0.031 mg/l	
STP	2.1 mg/l	
Fresh water sediment	0.091 mg/kg sediment dw	
Marine water sediment	0.009 mg/kg sediment dw	
Soil	0.136 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

Keep away from naked flames/heat. 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 strict hygiene. Do not eat, drink or smoke during work.

#### a) Respiratory protection:

Respiratory protection not required in normal conditions.

#### b) Hand protection:

Protective gloves against chemicals (EN 374).

#### c) Eye protection:

Safety glasses (EN 166).

#### d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

### 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
Viscosity	Viscous
Odour	Almost odourless
Odour threshold	No data available in the literature
Colour	Brown
Particle size	No data available
Explosion limits	No data available in the literature
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available in the literature
Kinematic viscosity	No data available in the literature
Melting point	No data available in the literature
Boiling point	> 35 °C
Evaporation rate	No data available in the literature
Relative vapour density	No data available in the literature
Vapour pressure	< 5 hPa ; 20 °C
Solubility	No data available in the literature
Relative density	1.9 ; 20 °C
Decomposition temperature	No data available in the literature
Auto-ignition temperature	No data available in the literature
Flash point	> 100 °C ; Closed cup
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available in the literature

### 9.2. Other information

Absolute density	1900 kg/m <sup>3</sup> ; 20 °C
------------------	--------------------------------

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

6 / 17

# NOVA TITAN STICK

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Heating increases the fire hazard.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Reacts violently with (strong) oxidizers and with (strong) reducers.

### 10.4. Conditions to avoid

#### Precautionary measures

Keep away from naked flames/heat.

### 10.5. Incompatible materials

Oxidizing agents, (strong) bases.

### 10.6. Hazardous decomposition products

Upon combustion: formation of CO, CO<sub>2</sub> and small quantities of nitrous vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### 11.1.1 Test results

#### Acute toxicity

##### NOVA TITAN STICK

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	> 5000 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male / female)	Experimental value	
Inhalation (aerosol)	LC50	OECD 403	> 2.1 mg/l	4 h	Rat (male / female)	Experimental value	

##### 2-piperazin-1-ylethylamine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		2097 mg/kg bw		Rat (male)	Experimental value	
Oral			category 4			Annex VI	
Dermal	LD50		866 mg/kg bw/day	24 h	Rabbit (male)	Experimental value	
Inhalation (saturated vapour)				8 h	Rat (female)	Experimental value	Not classified

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

##### triethylenetetramine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Dermal			category 4			Annex VI	

##### phenol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	340 mg/kg bw - 540 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	660 mg/kg bw	24 h	Rat (female)	Experimental value	
Inhalation (aerosol)	LC50	Equivalent to OECD 403	0.9 mg/l	8 h	Rat (female)	Experimental value	

#### Conclusion

Not classified for acute toxicity

#### Corrosion/irritation

##### NOVA TITAN STICK

No (test)data on the mixture available

Judgement is based on the relevant ingredients

# NOVA TITAN STICK

## Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		1; 24; 48; 72 hours	Rabbit	Experimental value	
Not applicable (in vitro test)	Not irritating	EU Method B.46			Reconstructed human epidermis	Experimental value	

## epoxy resin (number average molecular weight ≤ 700)

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating; category 2					Annex VI	
Skin	Irritating; category 2					Annex VI	

## 2-piperazin-1-ylethylamine

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage		30 seconds	1; 24; 48; 72; 168 hours	Rabbit	Experimental value	Single treatment with rinsing
Skin	Corrosive		20 minutes	24 hours	Rabbit	Experimental value	

## triethylenetetramine

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage; category 1					Annex VI	
Skin	Corrosive; category 1B					Annex VI	

## phenol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	Equivalent to OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment without rinsing
Not applicable (in vitro test)	Corrosive	OECD 431	3 minutes		Reconstructed human epidermis	Experimental value	

## Conclusion

Not classified as irritating to the skin  
 Not classified as irritating to the eyes  
 Not classified as irritating to the respiratory system

## Respiratory or skin sensitisation

### NOVA TITAN STICK

No (test)data on the mixture available  
 Judgement is based on the relevant ingredients

## Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig (female)	Experimental value	
Inhalation	Not sensitizing				Rat (male)	Experimental value	

## epoxy resin (number average molecular weight ≤ 700)

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing; category 1					Annex VI	

## 2-piperazin-1-ylethylamine

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

## triethylenetetramine

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing; category 1					Annex VI	

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

8 / 17



# NOVA TITAN STICK

## phenol

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

## Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

## Specific target organ toxicity

### NOVA TITAN STICK

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	Equivalent to OECD 452	100 mg/kg bw/day		No effect	101 day(s)	Rat (male / female)	Experimental value
Dermal								Data waiving
Inhalation (aerosol)	NOAEC	Equivalent to OECD 452	10.8 mg/m <sup>3</sup> air		No effect	52 weeks (7h / day, 5 days / week)	Rat (male / female)	Experimental value

### 2-piperazin-1-ylethylamine

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	OECD 422	2000 ppm		No effect	28 day(s)	Rat (male / female)	Experimental value
Dermal	NOEL	OECD 410	≥ 1000 mg/kg bw/day		No effect	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

## phenol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	Equivalent to OECD 408	71 mg/kg bw/day		No effect	13 week(s)	Rat (male)	Experimental value
Oral (drinking water)	LOAEL	Equivalent to OECD 408	300 mg/kg bw/day		Reduced food consumption	13 week(s)	Rat (male)	Experimental value
Dermal	NOAEL	Subacute toxicity test	130 mg/kg bw/day		No adverse systemic effects	18 days (5h / day)	Rabbit	Experimental value
Dermal	LOAEL	Subacute toxicity test	260 mg/kg bw/day		Systemic effects	18 days (5h / day)	Rabbit	Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 412	25 ppm		No effect	2 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

## Conclusion

Not classified for subchronic toxicity

## Mutagenicity (in vitro)

### NOVA TITAN STICK

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value	

### 2-piperazin-1-ylethylamine

Result	Method	Test substrate	Effect	Value determination	Remark
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value	

# NOVA TITAN STICK

## phenol

Result	Method	Test substrate	Effect	Value determination	Remark
Negative without metabolic activation, positive with metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value	
Positive with metabolic activation, positive without metabolic activation	Equivalent to OECD 487	Chinese hamster ovary (CHO)		Experimental value	

## Mutagenicity (in vivo)

### NOVA TITAN STICK

No (test)data on the mixture available

Judgement is based on the relevant ingredients

#### Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	Equivalent to OECD 478	5 days (1x / day)	Rat (male)		Experimental value

#### 2-piperazin-1-ylethylamine

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

## phenol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Positive (Intraperitoneal)	Equivalent to OECD 474		Mouse (male / female)	Bone marrow	Experimental value

### Conclusion

Not classified for mutagenic or genotoxic toxicity

## Carcinogenicity

### NOVA TITAN STICK

No (test)data on the mixture available

Judgement is based on the relevant ingredients

#### Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (aerosol)	NOAEC	Carcinogenic toxicity study	8.1 mg/m <sup>3</sup> air	30 day(s)	Hamster (male / female)	No carcinogenic effect		Experimental value
Oral (diet)	NOAEL	OECD 453	100 mg/kg bw/day	101 day(s)	Rat (male / female)	No carcinogenic effect		Experimental value

## phenol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (drinking water)	NOAEL	Equivalent to OECD 451	5000 ppm	103 week(s)	Rat (male / female)	No carcinogenic effect		Experimental value

### Conclusion

Not classified for carcinogenicity

## Reproductive toxicity

### NOVA TITAN STICK

No (test)data on the mixture available

Judgement is based on the relevant ingredients

#### Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	Developmental toxicity study	1600 mg/kg bw/day	10 days (1x / day)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	Developmental toxicity study	≥ 1600 mg/kg bw/day	10 days (1x / day)	Rat	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL	Equivalent to OECD 416	> 900 mg/kg bw/day	13 days (1x / day)	Rabbit (female)	No effect		Experimental value

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

10 / 17

# NOVA TITAN STICK

## 2-piperazin-1-ylethylamine

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	OECD 422	8000 mg/l	14 day(s)	Rat (male / female)	No effect		Experimental value
Maternal toxicity	NOAEC	OECD 422	2000 mg/l	14 day(s)	Rat	No effect		Experimental value
Effects on fertility	NOAEC	OECD 422	8000 mg/l	28 day(s)	Rat (male / female)	No effect		Experimental value

## phenol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	140 mg/kg bw/day	11 days (gestation, daily)	Mouse	Degeneration of heart tissue		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	140 mg/kg bw/day	11 days (gestation, daily)	Mouse	No effect		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL	Equivalent to OECD 416	71 mg/kg bw/day - 93 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

## Conclusion

Not classified for reprotoxic or developmental toxicity

## Toxicity other effects

### NOVA TITAN STICK

No (test)data on the mixture available

## Chronic effects from short and long-term exposure

### NOVA TITAN STICK

Skin rash/inflammation.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### NOVA TITAN STICK

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	ECOSAR v1.00	89581 mg/l	96 h	Pisces		Fresh water	QSAR
Acute toxicity crustacea	LC50	ECOSAR v1.00	36812 mg/l	48 h	Daphnia sp.		Fresh water	QSAR
Toxicity algae and other aquatic plants	EC50	ECOSAR v1.00	7203 mg/l	96 h	Algae		Fresh water	QSAR
	NOEC	ECOSAR v1.00	918 mg/l	30 day(s)	Algae		Fresh water	QSAR
Long-term toxicity fish	NOEC	ECOSAR v1.00	5980 mg/l	30 day(s)	Pisces		Fresh water	QSAR
Long-term toxicity aquatic crustacea	NOEC	ECOSAR v1.00	1460 mg/l	30 day(s)	Daphnia sp.		Fresh water	QSAR

epoxy resin (number average molecular weight ≤ 700)

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	2.3 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	OECD 202	1.1 mg/l - 2.8 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	EC50	EPA 660/3 - 75/009	9.4 mg/l	72 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value; Biomass
Long-term toxicity aquatic crustacea	NOEC	OECD 211	0.3 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

11 / 17

# NOVA TITAN STICK

## 2-piperazin-1-ylethylamine

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		2190 mg/l	96 h	Pimephales promelas	Static system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	OECD 202	58 mg/l	48 h	Daphnia magna	Static system		Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	> 1000 mg/l	72 h	Pseudokirchneriella subcapitata		Fresh water	Experimental value; GLP
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea								Data waiving
Toxicity aquatic micro-organisms	EC0		> 300 mg/l	168 h	Activated sludge			Experimental value

## phenol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	US EPA	8.9 mg/l	96 h	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	US EPA	3.1 mg/l	48 h	Ceriodaphnia dubia	Static system	Fresh water	Experimental value; Locomotor effect
Long-term toxicity fish	NOEC		0.077 mg/l	60 day(s)	Cirrhinus mrigala	Semi-static system	Fresh water	Experimental value; Weight changes

## Conclusion

Harmful to aquatic life with long lasting effects.

## 12.2. Persistence and degradability

### Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

#### Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	18.602 h	1.5E6 /cm <sup>3</sup>	QSAR

### epoxy resin (number average molecular weight ≤ 700)

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	5 %; Oxygen consumption	28 day(s)	Experimental value

#### Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.91	6.44 h	5E5 /cm <sup>3</sup>	QSAR

## 2-piperazin-1-ylethylamine

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	0 %; GLP	28 day(s)	Experimental value

## phenol

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301C	62 %; Oxygen consumption	100 h	Experimental value

## Conclusion

### Water

Contains non readily biodegradable component(s)

## 12.3. Bioaccumulative potential

### NOVA TITAN STICK

#### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

### Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

#### BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.01	3.162 l/kg			QSAR

#### Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN		-9.4	25 °C	QSAR

### epoxy resin (number average molecular weight ≤ 700)

#### Log Kow

Method	Remark	Value	Temperature	Value determination
EU Method A.8		2.918 - 3.566	25 °C	Experimental value

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

12 / 17

# NOVA TITAN STICK

## 2-piperazin-1-ylethylamine

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	0.3 - 6.3	6 week(s)	Cyprinus carpio	Read-across

### Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		-1.48	20 °C	Experimental value

## triethylenetetramine

### Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN		-2.65		Estimated value

## phenol

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	17.5; Fresh weight	5 h	Danio rerio	Experimental value

### Log Kow

Method	Remark	Value	Temperature	Value determination
		1.47	30 °C	Experimental value

### Conclusion

Does not contain bioaccumulative component(s)

## 12.4. Mobility in soil

### Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

#### Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
5.539E-29 atm m <sup>3</sup> /mol	SRC HENRYWIN v3.20	25 °C		QSAR

#### Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	0 %	0 %	39.3 %	56 %	4.72 %	QSAR

### epoxy resin (number average molecular weight ≤ 700)

#### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	2.65	QSAR

## 2-piperazin-1-ylethylamine

#### (log) Koc

Parameter	Method	Value	Value determination
log Koc		4.57	Read-across

## triethylenetetramine

#### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	1.885	Calculated value

## phenol

#### (log) Koc

Parameter	Method	Value	Value determination
Koc	OECD 121	14 - 73	Experimental value
log Koc		1.15 - 1.86	Calculated value

### Conclusion

Contains component(s) that adsorb(s) into the soil

Contains component(s) with potential for mobility in 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

### NOVA TITAN STICK

#### Greenhouse gases

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)

#### Groundwater

Groundwater pollutant

### epoxy resin (number average molecular weight ≤ 700)

#### Groundwater

Groundwater pollutant

# NOVA TITAN STICK

phenol

Groundwater

Groundwater 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

##### 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

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. Dispose of at authorized waste collection point.

#### 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), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

#### 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	
Limited quantities	

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

Annex II of MARPOL 73/78	Not applicable, based on available data
--------------------------	---

## 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
0 %	
0 g/l	

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

phenol

Product name	Skin resorption
Phenol	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
· epoxy resin (number average molecular weight ≤ 700) · 2-piperazin-1-ylethylamine	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to	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,

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

14 / 17

# NOVA TITAN STICK

· triethylenetetramine	<p>Regulation (EC) No 1272/2008:</p> <p>(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;</p> <p>(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;</p> <p>(c) hazard class 4.1;</p> <p>(d) hazard class 5.1.</p>	<p>— tricks and jokes,</p> <p>— games for one or more participants, or any article intended to be used as such, even with ornamental aspects,</p> <p>2. Articles not complying with paragraph 1 shall not be placed on the market.</p> <p>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:</p> <p>— can be used as fuel in decorative oil lamps for supply to the general public, and,</p> <p>— present an aspiration hazard and are labelled with H304,</p> <p>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).</p> <p>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:</p> <p>a) lamp oils, labelled with 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”;</p> <p>b) grill lighter fluids, labelled with 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”;</p> <p>c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.</p> <p>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 H304, intended for supply to the general public.</p> <p>7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'</p>
------------------------	---	--

## National legislation Belgium

### NOVA TITAN STICK

No data available

### cristobalite sand

Additional classification	Silices cristallines : cristobalite (poussières alvéolaires); C; La mention “C” signifie que l’agent en question relève du champ d’application de l’arrêté royal du 2 décembre 1993 concernant la protection des travailleurs contre les risques liés à l’exposition à des agents cancérogènes et mutagènes et reprotoxiques au travail.
---------------------------	--

### phenol

Résorption peau	Phénol; 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

### NOVA TITAN STICK

Waterbezwaarlijkheid	B (4); Algemene Beoordelingsmethodiek (ABM)
----------------------	---

### cristobalite sand

SZW - Lijst van kankerverwekkende stoffen	silica (respirabel stof, kristallijn); Listed in SZW-list of carcinogenic substances
---	--

### phenol

Huidopname (wettelijk)	Fenol; H
------------------------	----------

## National legislation France

### NOVA TITAN STICK

No data available

### phenol

Catégorie mutagène	Phénol; M2
Risque de pénétration percutanée	Phénol; PP

## National legislation Germany

### NOVA TITAN STICK

WGK	1; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
-----	--

### Talc (Mg3H2(SiO3)4)

TA-Luft	5.2.1
---------	-------

### epoxy resin (number average molecular weight ≤ 700)

TA-Luft	5.2.5/I
---------	---------

### 2-piperazin-1-ylethylamine

TA-Luft	5.2.5
---------	-------

### triethylenetetramine

TA-Luft	5.2.5/I
---------	---------

### phenol

TA-Luft	5.2.5/I
Hautresorptive Stoffe	Phenol; H; Hautresorptiv

## National legislation United Kingdom

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

15 / 17

# NOVA TITAN STICK

## NOVA TITAN STICK

No data available

### cristobalite sand

Carcinogen	Silica, respirable crystalline (respirable fraction); Carc
phenol	
Skin absorption	Phenol; Sk

### Other relevant data

## NOVA TITAN STICK

No data available

### Talc (Mg3H2(SiO3)4)

IARC - classification	3; Talc
TLV - Carcinogen	Talc (containing no asbestos fibers); A4

### cristobalite sand

TLV - Carcinogen	Silica-Crystalline Cristobalite; A2
------------------	-------------------------------------

### phenol

IARC - classification	3; Phenol
TLV - Skin absorption	Phenol; Skin; Danger of cutaneous absorption
TLV - Carcinogen	Phenol; A4

## 15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

## SECTION 16: Other information

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

- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H341 Suspected of causing genetic defects.
- H373 May cause damage to organs (skin, liver, kidneys, nervous system) through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
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

epoxy resin (number average molecular weight ≤ 700)	C ≥ 5 %	Skin Irrit. 2; H315	C&L
	C ≥ 5 %	Eye Irrit. 2; H319	C&L

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is

Reason for revision: 2; 3; 8; 15

Publication date: 2001-07-03

Date of revision: 2020-05-22

Revision number: 0800

Product number: 35912

16 / 17



# NOVA TITAN STICK

subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.