

Page 1 of 16  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 04.07.2017 / 0005  
Replacing version dated / version: 30.11.2016 / 0004  
Valid from: 04.07.2017  
PDF print date: 04.06.2019  
beko MS-Flex (colored)

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

**beko MS-Flex (colored)**

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

**Relevant identified uses of the substance or mixture:**

Seam sealant

**Uses advised against:**

No information available at present.

#### 1.3 Details of the supplier of the safety data sheet

beko GmbH, Rappenfeldstr. 5, DE-86653 Monheim  
Phone: +49 (0) 9091-90898-0, Telefax +49 (0) 9091-90898-29

Qualified person's e-mail address: [info@beko-group.com](mailto:info@beko-group.com)

#### 1.4 Emergency telephone number

**Emergency information services / official advisory body:**

Poison Control Center Mainz - 24 hour emergency service  
Phone: +49 (0) 6131/19240

**Telephone number of the company in case of emergencies:**

Phone: +49 (0) 9091-90898-0

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) 1272/2008 (CLP)**

The mixture is not classified as dangerous in the terms of the Regulation (EC) 1272/2008 (CLP).

#### 2.2 Label elements

**Labeling according to Regulation (EC) 1272/2008 (CLP)**

EUH210-Safety data sheet available on request.

#### 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

### SECTION 3: Composition/information on ingredients

#### 3.1 Substance

n.a.

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 04.07.2017 / 0005  
 Replacing version dated / version: 30.11.2016 / 0004  
 Valid from: 04.07.2017  
 PDF print date: 04.06.2019  
 beko MS-Flex (colored)

### 3.2 Mixture

<b>Trimethoxyvinylsilane</b>	
<b>Registration number (REACH)</b>	01-2119513215-52-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP</b>	220-449-8
<b>CAS</b>	2768-02-7
<b>content %</b>	1-5
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Flam. Liq. 3, H226 Acute Tox. 4, H332

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.  
 For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.  
 The substances named in this section are given with their actual, appropriate classification!  
 For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

First-aiders should ensure they are protected!  
 Never pour anything into the mouth of an unconscious person!

#### Inhalation

Supply person with fresh air and consult doctor according to symptoms.

#### Skin contact

Wipe off residual product carefully with a soft, dry cloth.  
 Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

#### Eye contact

Remove contact lenses.  
 Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

#### Ingestion

Rinse the mouth thoroughly with water.  
 Do not induce vomiting - give copious water to drink. Consult doctor immediately.  
 Upon contact with stomach acid development of:  
 Methanol

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

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.  
 The following may occur:

Irritation of the eyes  
 Skin irritation possible with prolonged contact.  
 Development of:  
 Methanol

The following applies to this substance:  
 Product results in a poisonous effect.  
 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

### 4.3 Indication of any immediate medical attention and special treatment needed

n.c.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Adapt to the nature and extent of fire.  
 Water jet spray / alcohol resistant foam / CO2 / dry extinguisher.

#### Unsuitable extinguishing media

None known

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

Page 3 of 16  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 04.07.2017 / 0005  
Replacing version dated / version: 30.11.2016 / 0004  
Valid from: 04.07.2017  
PDF print date: 04.06.2019  
beko MS-Flex (colored)

In case of fire the following can develop:

Oxides of carbon

Toxic gases

### **5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

## **SECTION 6: Accidental release measures**

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

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

### **6.2 Environmental precautions**

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

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

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.

Or:

Pick up mechanically and dispose of according to Section 13.

Flush residue using copious water.

### **6.4 Reference to other sections**

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

## **SECTION 7: Handling and storage**

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

### **7.1 Precautions for safe handling**

#### **7.1.1 General recommendations**

Ensure good ventilation.

Avoid contact with eyes.

Avoid long lasting or intensive contact with skin.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

#### **7.1.2 Notes on general hygiene measures at the workplace**

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

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

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.

Store in a well ventilated place.

Store in a dry place.

### **7.3 Specific end use(s)**

No information available at present.

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

The methanol listed below can arise upon contact with water.

Chemical Name	Methanol	Content %:
WEL-TWA: 200 ppm (266 mg/m <sup>3</sup> ) (WEL), 200 ppm (260 mg/m <sup>3</sup> ) (EU)	WEL-STEL: 250 ppm (333 mg/m <sup>3</sup> ) (WEL)	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Compur - KITA-119 SA (549 640)</li> <li>- Compur - KITA-119 U (549 657)</li> <li>- Draeger - Alcohol 25/a Methanol (81 01 631)</li> <li>- DFG (D) (Lösungsmittelgemische 6), DFG (E) (Solvent mixtures 6) - 1998, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 65-1 (2004)</li> <li>- Draeger - Alcohol 100/a (CH 29 701)</li> </ul>	
BMGV: ---	Other information: Sk (WEL, EU)	
Chemical Name	Calcium carbonate	Content %:
WEL-TWA: 4 mg/m <sup>3</sup> (respirable dust), 10 mg/m <sup>3</sup> (total inhalable dust)	WEL-STEL: ---	---
Monitoring procedures:	---	
BMGV: ---	Other information: ---	
Chemical Name	Titanium dioxide	Content %:
WEL-TWA: 10 mg/m <sup>3</sup> (total inhalable dust), 4 mg/m <sup>3</sup> (respirable dust)	WEL-STEL: ---	---
Monitoring procedures:	---	
BMGV: ---	Other information: ---	

Trimethoxyvinylsilane						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,34	mg/l	
	Environment - marine		PNEC	0,034	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	3,4	mg/l	
	Environment - sewage treatment plant		PNEC	110	mg/l	
	Environment - sediment, freshwater		PNEC	0,27	mg/kg	
	Environment - sediment, marine		PNEC	0,12	mg/kg	
	Environment - soil		PNEC	0,046	mg/kg	
Consumer	Human - dermal	Short term, systemic effects	DNEL	26,9	mg/kg bw/day	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	93,4	mg/m <sup>3</sup>	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,3	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,04	mg/m <sup>3</sup>	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,3	mg/kg bw/day	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	0,69	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	4,9	mg/m <sup>3</sup>	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,69	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	4,9	mg/kg	

### Methanol

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	154	mg/l	
	Environment - marine		PNEC	15,4	mg/l	
	Environment - sediment, freshwater		PNEC	570,4	mg/kg	
	Environment - sediment, marine		PNEC	57,04	mg/kg	
	Environment - soil		PNEC	23,5	mg/kg	
	Environment - water, sporadic (intermittent) release		PNEC	1540	mg/l	
	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - freshwater		PNEC	20,8	mg/l	
	Environment - marine		PNEC	2,08	mg/l	
	Environment - sediment		PNEC	77	mg/kg	
	Environment - sediment		PNEC	7,7	mg/kg	
Consumer	Human - inhalation	Long term, local effects	DNEL	50	mg/m3	
Consumer	Human - dermal	Short term, systemic effects	DNEL	8	mg/kg body weight/day	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	50	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	8	mg/kg body weight/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	8	mg/kg body weight/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	50	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	8	mg/kg body weight/day	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	40	mg/kg body weight/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	260	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	260	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	40	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	260	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	260	mg/m3	

Titanium dioxide						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,184	mg/l	
	Environment - marine		PNEC	0,0184	mg/l	

Page 6 of 16  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 04.07.2017 / 0005  
 Replacing version dated / version: 30.11.2016 / 0004  
 Valid from: 04.07.2017  
 PDF print date: 04.06.2019  
 beko MS-Flex (colored)

	Environment - water, sporadic (intermittent) release		PNEC	0,193	mg/l	
	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - sediment, freshwater		PNEC	1000	mg/kg dw	
	Environment - sediment, marine		PNEC	100	mg/kg dw	
	Environment - soil		PNEC	100	mg/kg dw	
	Environment - oral (animal feed)		PNEC	1667	mg/kg feed	
Consumer	Human - oral	Long term, systemic effects	DNEL	700	mg/kg	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	10	mg/m3	

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).  
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).  
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.  
 \*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.  
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.  
 Applies only if maximum permissible exposure values are listed here.  
 Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.  
 These are specified by e.g. BS EN 14042.  
 BS EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:  
 With danger of contact with eyes.  
 Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:  
 Chemical resistant protective gloves (EN 374).  
 If applicable  
 Safety gloves made of butyl (EN 374)  
 Protective nitrile gloves (EN 374).  
 Safety gloves made of fluorocarbon rubber (EN 374).  
 Safety gloves made of vinyl (EN 374)  
 Permeation time (penetration time) in minutes:  
 >480  
 Minimum layer thickness in mm:  
 >0,1  
 Protective hand cream recommended.

Page 7 of 16  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 04.07.2017 / 0005  
 Replacing version dated / version: 30.11.2016 / 0004  
 Valid from: 04.07.2017  
 PDF print date: 04.06.2019  
 beko MS-Flex (colored)

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.  
 The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:  
 Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:  
 Normally not necessary.

Thermal hazards:  
 Not applicable

Additional information on hand protection - No tests have been performed.  
 In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.  
 Selection of materials derived from glove manufacturer's indications.  
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.  
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.  
 In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.  
 The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Pastelike, Solid
Colour:	According to specification
Odour:	Characteristic, Mild
Odour threshold:	Not determined
pH-value:	n.a.
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	Not determined
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	1,4-1,6 g/cm <sup>3</sup>
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	400 °C (Ignition temperature )
Decomposition temperature:	Not determined
Viscosity:	>20,5 mm <sup>2</sup> /s (40°C)
Explosive properties:	Product is not explosive.
Oxidising properties:	No

### 9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	0 %
Metal content:	Not determined
Molar mass:	Not determined
Chemical heat of combustion:	Not determined

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 04.07.2017 / 0005  
 Replacing version dated / version: 30.11.2016 / 0004  
 Valid from: 04.07.2017  
 PDF print date: 04.06.2019  
 beko MS-Flex (colored)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product has not been tested.

### 10.2 Chemical stability

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

### 10.4 Conditions to avoid

See also section 7.

Strong heat

Protect from humidity.

Product may hydrolyse.

### 10.5 Incompatible materials

See also section 7.

Avoid contact with strong alkalis.

Avoid contact with strong acids.

### 10.6 Hazardous decomposition products

See also section 5.2

On contact with moist air:

Methanol

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

#### beko MS-Flex (colored)

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value, Vapours
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						Not irritant, Expert judgement
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

#### Trimethoxyvinylsilane

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	7120	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	3200	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LD50	2773	ppm/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol



Page 9 of 16  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 04.07.2017 / 0005  
 Replacing version dated / version: 30.11.2016 / 0004  
 Valid from: 04.07.2017  
 PDF print date: 04.06.2019  
 beko MS-Flex (colored)

Acute toxicity, by inhalation:	LC50	16,8	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Vapours
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Slightly irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:	NOAEL	1000	mg/kg	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Development. Tox. Screening Test)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEC	0,058		Rat	OECD 413 (Subchronic Inhalation Toxicity - 90-Day Study)	
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	10	mg/l	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Development. Tox. Screening Test)	Vapours
Symptoms:						drowsiness, dizziness, nausea, abdominal pain, breathing difficulties, visual disturbances

<b>Methanol</b>						
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	ATE	300	mg/kg	Human being		Experiences on persons.
Acute toxicity, by dermal route:	LD50	17100	mg/kg	Rabbit		Does not conform with EU classification.
Acute toxicity, by inhalation:	LC50	85	mg/l/4h	Rat		Not relevant for classification., Vapours
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Mild irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative

Page 10 of 16  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 04.07.2017 / 0005  
 Replacing version dated / version: 30.11.2016 / 0004  
 Valid from: 04.07.2017  
 PDF print date: 04.06.2019  
 beko MS-Flex (colored)

Symptoms:						abdominal pain, vomiting, headaches, gastrointestinal disturbances, drowsiness, visual disturbances, watering eyes, nausea, mental confusion
-----------	--	--	--	--	--	--

Calcium carbonate						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 420 (Acute Oral toxicity - Fixe Dose Procedure)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>3	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant, Mechanical irritation possible.
Respiratory or skin sensitisation:						No (skin contact)
Germ cell mutagenicity:					in vitro	Negative
Carcinogenicity:						Negative, administered as Ca-lactate
Reproductive toxicity:						Negative, administered as Ca-carbonate

Titanium dioxide						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 425 (Acute Oral Toxicity - Up-and-Down Procedure)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LD50	>6,8	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant, Mechanical irritation possible.
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Not sensitising
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:				Salmonella typhimurium	(Ames-Test)	Negative

Page 11 of 16  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 04.07.2017 / 0005  
 Replacing version dated / version: 30.11.2016 / 0004  
 Valid from: 04.07.2017  
 PDF print date: 04.06.2019  
 beko MS-Flex (colored)

Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity (Developmental toxicity):				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	No indications of such an effect.
Specific target organ toxicity - single exposure (STOT-SE):						Not irritant (respiratory tract).
Symptoms:						coughing, Irritant to mucosa of the nose and throat
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	3500	mg/kg/d	Rat		90d
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEC	10	mg/m3	Rat		90d

## SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

<b>beko MS-Flex (colored)</b>							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.

<b>Trimethoxyvinylsilane</b>							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>=100	mg/l	Brachydanio rerio		
12.1. Toxicity to fish:	LC50	96h	191	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	168,7	mg/l	Daphnia magna	Regulation (EC) 440/2008 C.2 (DAPHNIA SP. ACUTE IMMOBILISATION TEST)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	>957	mg/l	Scenedesmus subspicatus		88/302/EC

Page 12 of 16  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 04.07.2017 / 0005  
 Replacing version dated / version: 30.11.2016 / 0004  
 Valid from: 04.07.2017  
 PDF print date: 04.06.2019  
 beko MS-Flex (colored)

12.1. Toxicity to algae:	IC50	72h	>100	mg/l	Selenastrum capricornutum		
12.1. Toxicity to algae:	EC50	72h	>957	mg/l	Scenedesmus subspicatus		
12.2. Persistence and degradability:		28d	51	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50		>2500	mg/l	activated sludge		

<b>Methanol</b>							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	15400	mg/l	Lepomis macrochirus		
12.1. Toxicity to daphnia:	EC50	48h	>10000	mg/l	Daphnia magna		
12.2. Persistence and degradability:		28d	99	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		28400		Chlorella vulgaris		Not to be expected
Other information:	DOC		<70	%			
Other information:	BOD		>60	%			

<b>Calcium carbonate</b>							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	>14	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to bacteria:	EC50	3h	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Toxicity to annelids:					Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	Negative
Water solubility:			0,014	g/l			

<b>Titanium dioxide</b>							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes

Page 13 of 16  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 04.07.2017 / 0005  
 Replacing version dated / version: 30.11.2016 / 0004  
 Valid from: 04.07.2017  
 PDF print date: 04.06.2019  
 beko MS-Flex (colored)

12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	LC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	16	mg/l	Pseudokirchneriella subcapitata	U.S. EPA-600/9-78-018	
12.3. Bioaccumulative potential:	BCF	14d	19-352				Oncorhynchus mykiss
12.3. Bioaccumulative potential:	BCF	42d	9,6				No
12.4. Mobility in soil:							Negative
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:			>5000	mg/l	Escherichia coli		
Toxicity to bacteria:	LC0	24h	>10000	mg/l	Pseudomonas fluorescens		
Toxicity to annelids:	NOEC/NOEL		>1000	mg/kg	Eisenia foetida		
Water solubility:							Insoluble20°C

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:  
 The waste codes are recommendations based on the scheduled use of this product.  
 Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)  
 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

**Recommendation:**

Sewage disposal shall be discouraged.  
 Pay attention to local and national official regulations.

E.g. suitable incineration plant.

**Hardened product:**

E.g. dispose at suitable refuse site.

#### For contaminated packing material

Pay attention to local and national official regulations.

15 01 01 paper and cardboard packaging

15 01 02 plastic packaging

Empty container completely.

Untampered packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

## SECTION 14: Transport information

### General statements

14.1. UN number: n.a.

#### Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a.

14.4. Packing group: n.a.

Classification code: n.a.

LQ: n.a.

14.5. Environmental hazards: Not applicable

Page 14 of 16  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 04.07.2017 / 0005  
 Replacing version dated / version: 30.11.2016 / 0004  
 Valid from: 04.07.2017  
 PDF print date: 04.06.2019  
 beko MS-Flex (colored)

Tunnel restriction code:

**Transport by sea (IMDG-code)**

14.2. UN proper shipping name:  
 14.3. Transport hazard class(es): n.a.  
 14.4. Packing group: n.a.  
 Marine Pollutant: n.a.  
 14.5. Environmental hazards: Not applicable

**Transport by air (IATA)**

14.2. UN proper shipping name:  
 14.3. Transport hazard class(es): n.a.  
 14.4. Packing group: n.a.  
 14.5. Environmental hazards: Not applicable

**14.6. Special precautions for user**

Unless specified otherwise, general measures for safe transport must be followed.

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

Non-dangerous material according to Transport Regulations.

**SECTION 15: Regulatory information**

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

Observe restrictions:

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!  
 General hygiene measures for the handling of chemicals are applicable.

Directive 2010/75/EU (VOC): 0 %  
 Directive 2010/75/EU (VOC): 0 g/l

**15.2 Chemical safety assessment**

A chemical safety assessment is not provided for mixtures.

**SECTION 16: Other information**

Revised sections: 3, 8, 11, 12, 15

**Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):**

Not applicable

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H226 Flammable liquid and vapour.  
 H332 Harmful if inhaled.

Flam. Liq. — Flammable liquid  
 Acute Tox. — Acute toxicity - inhalation

**Any abbreviations and acronyms used in this document:**

- AC Article Categories
- acc., acc. to according, according to
- ACGIH American Conference of Governmental Industrial Hygienists
- ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
- AOEL Acceptable Operator Exposure Level
- AOX Adsorbable organic halogen compounds
- approx. approximately

## Art., Art. no. Article number

ATE	Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM	Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA	Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF	Bioconcentration factor
BGV	Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
BHT	Butylhydroxytoluol (= 2,6-Di- <i>t</i> -butyl-4-methyl-phenol)
BMGV	Biological monitoring guidance value (EH40, UK)
BOD	Biochemical oxygen demand
BSEF	Bromine Science and Environmental Forum
bw	body weight
CAS	Chemical Abstracts Service
CEC	Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
CESIO	Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC	Collaborative International Pesticides Analytical Council
CLP	Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR	carcinogenic, mutagenic, reproductive toxic
COD	Chemical oxygen demand
CTFA	Cosmetic, Toiletry, and Fragrance Association
DMEL	Derived Minimum Effect Level
DNEL	Derived No Effect Level
DOC	Dissolved organic carbon
DT50	Dwell Time - 50% reduction of start concentration
DVS	Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
dw	dry weight
e.g.	for example (abbreviation of Latin 'exempli gratia'), for instance
EC	European Community
ECHA	European Chemicals Agency
EEA	European Economic Area
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EN	European Norms
EPA	United States Environmental Protection Agency (United States of America)
ERC	Environmental Release Categories
ES	Exposure scenario
etc.	et cetera
EU	European Union
EWC	European Waste Catalogue
Fax.	Fax number
gen.	general
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
GWP	Global warming potential
HET-CAM	Hen's Egg Test - Chorionallantoic Membrane
HGWP	Halocarbon Global Warming Potential
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IBC (Code)	International Bulk Chemical (Code)
IC	Inhibitory concentration
IMDG-code	International Maritime Code for Dangerous Goods
incl.	including, inclusive
IUCLID	International Uniform Chemical Information Database
LC	lethal concentration
LC50	lethal concentration 50 percent kill
LCLo	lowest published lethal concentration
LD	Lethal Dose of a chemical
LD50	Lethal Dose, 50% kill
LDLo	Lethal Dose Low
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration

Page 16 of 16  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 04.07.2017 / 0005  
Replacing version dated / version: 30.11.2016 / 0004  
Valid from: 04.07.2017  
PDF print date: 04.06.2019  
beko MS-Flex (colored)

LOEL Lowest Observed Effect Level  
LQ Limited Quantities  
MARPOL International Convention for the Prevention of Marine Pollution from Ships  
n.a. not applicable  
n.av. not available  
n.c. not checked  
n.d.a. no data available  
NIOSH National Institute of Occupational Safety and Health (United States of America)  
NOAEC No Observed Adverse Effective Concentration  
NOAEL No Observed Adverse Effect Level  
NOEC No Observed Effect Concentration  
NOEL No Observed Effect Level  
ODP Ozone Depletion Potential  
OECD Organisation for Economic Co-operation and Development  
org. organic  
PAH polycyclic aromatic hydrocarbon  
PBT persistent, bioaccumulative and toxic  
PC Chemical product category  
PE Polyethylene  
PNEC Predicted No Effect Concentration  
POCP Photochemical ozone creation potential  
ppm parts per million  
PROC Process category  
PTFE Polytetrafluorethylene  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)  
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.  
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)  
SADT Self-Accelerating Decomposition Temperature  
SAR Structure Activity Relationship  
SU Sector of use  
SVHC Substances of Very High Concern  
Tel. Telephone  
ThOD Theoretical oxygen demand  
TOC Total organic carbon  
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)  
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods  
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))  
VOC Volatile organic compounds  
vPvB very persistent and very bioaccumulative  
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).  
WHO World Health Organization  
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.  
No responsibility.