

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

1.1. Product identifier

Trade name or designation of the mixture	Tite Seal Heavy Weight Gasket & Joint Compound
Registration number	-
Synonyms	None.
SDS number	T5504
Part No.	T5504, T5516
Issue date	05-October-2018
Version number	02
Revision date	08-October-2018
Supersedes date	05-October-2018

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

Identified uses	Gasket & Joint Compound
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name	RSC Chemical Solutions
Address	600 Radiator Road United States
Division	
Telephone	Customer service: (704) 821-7643 Technical: (704) 821-7643
e-mail	sds@rscbrands.com
Contact person	EcoMundo

1.4. Emergency telephone number	Customer service: (303) 623-5716
	Emergency Contact: RMPDC (877) 740-5015

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This preparation does not meet the criteria for classification according to Directive 1999/45/EC as amended.

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

Health hazards

Acute toxicity, oral	Category 4	H302 - Harmful if swallowed.
Acute toxicity, dermal	Category 4	H312 - Harmful in contact with skin.
Carcinogenicity	Category 2	H351 - Suspected of causing cancer.
Specific target organ toxicity - repeated exposure	Category 2	H373 - May cause damage to organs through prolonged or repeated exposure.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	Prolonged exposure may cause chronic effects.
Main symptoms	Coughing. Prolonged exposure may cause chronic effects.

2.2. Label elements

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

Contains: 2-Butoxyethanol, Crystalline silica, QUARTZ [SILICA CRYSTALLINE], Silica - Crystalline, Cristobalite, Titanium dioxide

Hazard pictograms**Signal word**

Warning

Hazard statements

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements**Prevention**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
P330 Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P312 Call a POISON CENTRE/doctor if you feel unwell.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information 94,79 % of the mixture consists of component(s) of unknown acute dermal toxicity. 99,48 % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 99,48 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. NOTE: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The container label may not include the OSHA label elements listed in this document. Always carefully review the entire SDS and the product label prior to use in the workplace.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
2-Butoxyethanol	3 - < 5	111-76-2 203-905-0	-	603-014-00-0	#
Classification:	DSD: Xn;R20/21/22, Xi;R36/38 CLP: Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Irrit. 2;H315, Eye Irrit. 2;H319, Acute Tox. 4;H332				
QUARTZ [SILICA CRYSTALLINE]	1 - < 3	14808-60-7 238-878-4	-	-	
Classification:	DSD: - CLP: Carc. 1A;H350				
Titanium dioxide	1 - < 3	13463-67-7 236-675-5	-	-	
Classification:	DSD: - CLP: Carc. 2;H351				

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Crystalline silica	< 0,3	15468-32-3 239-487-1	-	-	
Classification:	DSD: - CLP: Carc. 1A;H350				
Silica - Crystalline, Cristobalite	< 0,3	14464-46-1 238-455-4	-	-	
Classification:	DSD: - CLP: Carc. 1A;H350				

Other components below reportable levels 90 - 100

List of abbreviations and symbols that may be used above

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

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

Composition comments The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General information IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed Coughing. Prolonged exposure may cause chronic effects.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

6.4. Reference to other sections For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	MAK	98 mg/m3	
		20 ppm	
	STEL	200 mg/m3	
		40 ppm	
Crystalline silica (CAS 15468-32-3)	MAK	0,15 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	MAK	0,15 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	MAK	0,15 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	MAK	5 mg/m3	Respirable dust.
	STEL	10 mg/m3	Respirable dust.

Belgium. Exposure Limit Values.

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	
		98 mg/m3	
	TWA	20 ppm	

Belgium. Exposure Limit Values.

Components	Type	Value	Form
Calcium carbonate (CAS 471-34-1)	TWA	10 mg/m3	
Crystalline silica (CAS 15468-32-3)	TWA	0,05 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,05 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	
	TWA	98 mg/m3	
		20 ppm	
Calcium carbonate (CAS 471-34-1)	TWA	1 fibers/cm3	Respirable fraction.
		10 mg/m3	
		10 mg/m3	Inhalable fraction.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,07 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	Respirable dust.

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	MAC	98 mg/m3	
		20 ppm	
	STEL	246 mg/m3	
		50 ppm	
Calcium carbonate (CAS 471-34-1)	MAC	4 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Crystalline silica (CAS 15468-32-3)	MAC	0,05 mg/m3	
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	MAC	0,1 mg/m3	
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	MAC	0,05 mg/m3	
Titanium dioxide (CAS 13463-67-7)	STEL	4 mg/m3	Respirable dust.
		10 mg/m3	Total dust.

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Components	Type	Value
Calcium carbonate (CAS 471-34-1)	TWA	10 mg/m3
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3

Czech Republic. OELs. Government Decree 361

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	Ceiling	200 mg/m3	
	TWA	100 mg/m3	
Calcium carbonate (CAS 471-34-1)	TWA	10 mg/m3	Dust.
Crystalline silica (CAS 15468-32-3)	TWA	0,1 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,1 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	TWA	5 mg/m3	Dust.

Denmark. Exposure Limit Values

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TLV	98 mg/m3	
		20 ppm	
Crystalline silica (CAS 15468-32-3)	TLV	0,15 mg/m3	Total
		0,05 mg/m3	Respirable.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TLV	0,3 mg/m3	Total
		0,1 mg/m3	Respirable.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TLV	0,15 mg/m3	Total
		0,05 mg/m3	Respirable.
Titanium dioxide (CAS 13463-67-7)	TLV	6 mg/m3	

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	
	TWA	98 mg/m3	
		20 ppm	
Calcium carbonate (CAS 471-34-1)	TWA	5 mg/m3	Respirable dust.
		10 mg/m3	
Crystalline silica (CAS 15468-32-3)	TWA	0,05 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,05 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	TWA	5 mg/m3	

Finland. Workplace Exposure Limits

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	250 mg/m3	

**Finland. Workplace Exposure Limits
Components**

Components	Type	Value	Form
		50 ppm	
	TWA	98 mg/m3	
		20 ppm	
Calcium carbonate (CAS 471-34-1)	TWA	10 mg/m3	Dust.
Crystalline silica (CAS 15468-32-3)	TWA	0,05 mg/m3	Respirable.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,05 mg/m3	Respirable.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,05 mg/m3	Respirable.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	Dust.

**France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984
Components**

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	VLE	246 mg/m3	
Regulatory status:	Regulatory binding (VRC)		
		50 ppm	
Regulatory status:	Regulatory binding (VRC)		
	VME	49 mg/m3	
Regulatory status:	Regulatory binding (VRC)		
		10 ppm	
Regulatory status:	Regulatory binding (VRC)		
Calcium carbonate (CAS 471-34-1)	VME	10 mg/m3	
Regulatory status:	Indicative limit (VL)		
Crystalline silica (CAS 15468-32-3)	VME	0,05 mg/m3	Respirable fraction.
Regulatory status:	Regulatory binding (VRC)		
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	VME	0,1 mg/m3	Respirable fraction.
Regulatory status:	Regulatory binding (VRC)		
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	VME	0,05 mg/m3	Respirable fraction.
Regulatory status:	Regulatory binding (VRC)		
Titanium dioxide (CAS 13463-67-7)	VME	10 mg/m3	
Regulatory status:	Indicative limit (VL)		

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	49 mg/m3	
		10 ppm	
Titanium dioxide (CAS 13463-67-7)	TWA	4 mg/m3	Inhalable dust.
		0,3 mg/m3	Respirable dust.

**Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace
Components**

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	AGW	49 mg/m3	
		10 ppm	

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value	Form
Titanium dioxide (CAS 13463-67-7)	AGW	10 mg/m3	Inhalable fraction.
		1,25 mg/m3	Respirable fraction.

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	120 mg/m3	
		25 ppm	
Calcium carbonate (CAS 471-34-1)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Inhalable
Titanium dioxide (CAS 13463-67-7)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Inhalable

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
	TWA	98 mg/m3	
Calcium carbonate (CAS 471-34-1)	TWA	10 mg/m3	
Crystalline silica (CAS 15468-32-3)	TWA	0,15 mg/m3	Respirable.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,15 mg/m3	Respirable.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,15 mg/m3	Respirable.
Titanium dioxide (CAS 13463-67-7)	TWA	6 mg/m3	Respirable dust.
		10 mg/m3	Total inhalable dust.

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	
		100 mg/m3	
Crystalline silica (CAS 15468-32-3)	TWA	20 ppm	
		0,15 mg/m3	Total dust.
		0,05 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,3 mg/m3	Total dust.
		0,1 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,15 mg/m3	Total dust.
		0,05 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	TWA	6 mg/m3	

Ireland. Occupational Exposure Limits

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	

Ireland. Occupational Exposure Limits Components

Components	Type	Value	Form
	TWA	98 mg/m3 20 ppm	
Calcium carbonate (CAS 471-34-1)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Total inhalable dust.
Crystalline silica (CAS 15468-32-3)	TWA	0,1 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,1 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Total inhalable dust.

Italy. Occupational Exposure Limits Components

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
	TWA	50 ppm 98 mg/m3 20 ppm	
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,025 mg/m3	Respirable fraction.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,025 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment Components

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3
	TWA	50 ppm 98 mg/m3 20 ppm
Calcium carbonate (CAS 471-34-1)	TWA	6 mg/m3
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	1 mg/m3
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements Components

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	100 mg/m3	
	TWA	20 ppm 50 mg/m3 10 ppm	
Crystalline silica (CAS 15468-32-3)	TWA	0,05 mg/m3	Inhalable fraction.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable fraction.

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value	Form
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,05 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	5 mg/m3	

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

Components	Type	Value	
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	
	TWA	98 mg/m3	
		20 ppm	

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

Components	Type	Value	
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	
	TWA	98 mg/m3	
		20 ppm	

Netherlands. OELs (binding)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
	TWA	100 mg/m3	
Crystalline silica (CAS 15468-32-3)	TWA	0,075 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,075 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,075 mg/m3	Respirable dust.

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TLV	50 mg/m3	
		10 ppm	
Crystalline silica (CAS 15468-32-3)	TLV	0,15 mg/m3	Total dust.
		0,05 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TLV	0,3 mg/m3	Total dust.
		0,1 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TLV	0,15 mg/m3	Total dust.
		0,05 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	TLV	5 mg/m3	

Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	200 mg/m3	

Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Type	Value	Form
	TWA	98 mg/m3	
Calcium carbonate (CAS 471-34-1)	TWA	10 mg/m3	Inhalable fraction.
Crystalline silica (CAS 15468-32-3)	TWA	2 mg/m3	Inhalable fraction.
		0,3 mg/m3	Respirable fraction.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	2 mg/m3	Inhalable fraction.
		0,3 mg/m3	Respirable fraction.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	2 mg/m3	Inhalable fraction.
		0,3 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	STEL	30 mg/m3	
	TWA	10 mg/m3	Inhalable fraction.

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

Components	Type	Value	
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	
	TWA	98 mg/m3	
		20 ppm	

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
Calcium carbonate (CAS 471-34-1)	TWA	10 mg/m3	
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,025 mg/m3	Respirable fraction.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,025 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	
	TWA	98 mg/m3	
		20 ppm	
Calcium carbonate (CAS 471-34-1)	TWA	10 mg/m3	Inhalable fraction.
Crystalline silica (CAS 15468-32-3)	TWA	0,05 mg/m3	Respirable fraction.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable fraction.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,05 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	STEL	15 mg/m3	

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	Form
	TWA	10 mg/m3	

Romania. OELs/CMRs. Protection of workers from exposure to carcinogen and mutagen agents. Hotărâre Nr. 1093 din 16 august 2006, Annex 3

Components	Type	Value	Form
Crystalline silica (CAS 15468-32-3)	TWA	0,05 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,05 mg/m3	Respirable dust.

Slovakia. OELs for carcinogens and mutagens. Regulation No. 46/2002 on carcinogenic and mutagenic substances

Components	Type	Value	Form
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable fraction.

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value	
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	
	TWA	98 mg/m3	
		20 ppm	
Calcium carbonate (CAS 471-34-1)	TWA	10 mg/m3	
Crystalline silica (CAS 15468-32-3)	TWA	0,1 mg/m3	
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,1 mg/m3	
Titanium dioxide (CAS 13463-67-7)	TWA	5 mg/m3	

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	98 mg/m3	
		20 ppm	
Crystalline silica (CAS 15468-32-3)	TWA	0,15 mg/m3	Respirable fraction.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,15 mg/m3	Respirable fraction.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,15 mg/m3	Respirable fraction.

Spain. Occupational Exposure Limits

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	245 mg/m3	
		50 ppm	
	TWA	98 mg/m3	
		20 ppm	
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,05 mg/m3	Respirable fraction.

Spain. Occupational Exposure Limits

Components	Type	Value	Form
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,05 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	Ceiling	246 mg/m3	
		50 ppm	
	TWA	50 mg/m3	
		10 ppm	
Crystalline silica (CAS 15468-32-3)	TWA	0,05 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,05 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	TWA	5 mg/m3	Total dust.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	98 mg/m3	
		20 ppm	
	TWA	49 mg/m3	
		10 ppm	
Calcium carbonate (CAS 471-34-1)	TWA	3 mg/m3	Respirable dust.
Crystalline silica (CAS 15468-32-3)	TWA	0,15 mg/m3	Respirable dust.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,15 mg/m3	Respirable dust.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	0,15 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	TWA	3 mg/m3	Respirable dust.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3	
		50 ppm	
	TWA	123 mg/m3	
		25 ppm	
Calcium carbonate (CAS 471-34-1)	TWA	4 mg/m3	Respirable dust.
		4 mg/m3	Respirable.
		10 mg/m3	Inhalable
		10 mg/m3	Inhalable dust.
Crystalline silica (CAS 15468-32-3)	TWA	0,1 mg/m3	Respirable.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	TWA	1 fibers/mL	Fiber.
		5 mg/m3	Fiber.
		0,1 mg/m3	Respirable.
Titanium dioxide (CAS 13463-67-7)	TWA	4 mg/m3	Respirable.
		10 mg/m3	Inhalable

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	STEL	246 mg/m3
		50 ppm
	TWA	98 mg/m3
		20 ppm

Biological limit values**Czech Republic. Limit Values for Indicators of Biological Exposure Tests in Urine and Blood, Annex 2, Tables 1 and 2, Government Decree 432/2003 Sb.**

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (with hydrolysis)	Creatinine in urine	*
	0,17 mmol/mmol	Butoxyacetic acid (with hydrolysis)	Creatinine in urine	*

* - For sampling details, please see the source document.

Germany. TRGS 903, BAT List (Biological Limit Values)

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	150 mg/g	Butoxyessigsäure (nach Hydrolyse)	Creatinine in urine	*
	100 mg/l	Butoxyessigsäure	Urine	*

* - For sampling details, please see the source document.

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Ácido butoxiacético, con hidrólisis	Creatinine in urine	*

* - For sampling details, please see the source document.

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/l	Gesamt-Butoxyessigsäure	Urine	*
	100 mg/l	Butoxyessigsäure	Urine	*

* - For sampling details, please see the source document.

UK. EH40 Biological Monitoring Guidance Values (BMGVs)

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	240 mmol/mol	Butoxyacetic acid	Creatinine in urine	*

* - For sampling details, please see the source document.

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines

EU Exposure Limit Values: Skin designation

2-Butoxyethanol (CAS 111-76-2)

Can be absorbed through the skin.

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

2-Butoxyethanol (CAS 111-76-2)

Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection

Wear appropriate chemical resistant gloves.

- Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Chemical respirator with organic vapour cartridge and full facepiece.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

Observe any medical surveillance requirements. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls

Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Viscous. Paste.

Physical state

Not available.

Form

Liquid.

Colour

light beige

Odour

Mild

Odour threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

> 148,89 °C (> 300 °F)

Flash point

> 79,4 °C (> 175,0 °F) Cleveland open cup

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

Not available.

Flammability limit - upper (%)

Not available.

Vapour pressure

0,000005 hPa estimated

Vapour density

Not available.

Relative density

Not available.

Solubility(ies)

Solubility (water)

Not available.

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2. Other information

Density	13,34 lbs/gal estimated
Percent volatile	10 %
Specific gravity	1,6 estimated
VOC	4,9 % w/w

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
10.5. Incompatible materials	Acids. Fluorine.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
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Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Harmful in contact with skin.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Eye contact	Direct contact with eyes may cause temporary irritation.
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Ingestion	Harmful if swallowed.
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Symptoms	Coughing.
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11.1. Information on toxicological effects

Acute toxicity	Harmful in contact with skin. Harmful if swallowed.
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Components	Species	Test Results
2-Butoxyethanol (CAS 111-76-2)		
<u>Acute</u>		
Oral		
LD50	Rat	560 mg/kg
Silica - Crystalline, Cristobalite (CAS 14464-46-1)		
<u>Acute</u>		
Oral		
LD50	Rat	> 22500 mg/kg
Skin corrosion/irritation	Due to partial or complete lack of data the classification is not possible.	
Serious eye damage/eye irritation	Due to partial or complete lack of data the classification is not possible.	
Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.	
Skin sensitisation	Due to partial or complete lack of data the classification is not possible.	
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.	
Carcinogenicity	Suspected of causing cancer.	
Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)		
Not listed.		
IARC Monographs. Overall Evaluation of Carcinogenicity		
2-Butoxyethanol (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.	

Crystalline silica (CAS 15468-32-3)	1 Carcinogenic to humans.
QUARTZ [SILICA CRYSTALLINE] (CAS 14808-60-7)	1 Carcinogenic to humans.
Silica - Crystalline, Cristobalite (CAS 14464-46-1)	1 Carcinogenic to humans.
Titanium dioxide (CAS 13463-67-7)	2B Possibly carcinogenic to humans.

Reproductive toxicity	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - single exposure	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not likely, due to the form of the product.
Mixture versus substance information	No information available.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Components		Species	Test Results
2-Butoxyethanol (CAS 111-76-2)			
Aquatic			
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours
Titanium dioxide (CAS 13463-67-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hours
Fish	LC50	Mummichog (Fundulus heteroclitus)	> 1000 mg/l, 96 hours

12.2. Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

2-Butoxyethanol	0,83
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Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture. Not available.

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

12.7. Additional information

Estonia Dangerous substances in groundwater Data

2-Butoxyethanol (CAS 111-76-2)	Pesticides (total) 0,5 ug/l
	Pesticides (total) 5 ug/l

Estonia Dangerous substances in soil Data

2-Butoxyethanol (CAS 111-76-2)	Synthetic pesticides (total of active substances) 0,5 mg/kg
	Synthetic pesticides (total of active substances) 20 mg/kg
	Synthetic pesticides (total of active substances) 5 mg/kg

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Transport in bulk Not established. Not applicable.
according to Annex II of
MARPOL 73/78 and the IBC
Code

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Titanium dioxide (CAS 13463-67-7)

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. According to Directive 92/85/EEC as amended, pregnant women should not work with the product, if there is the least risk of exposure.

National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R36/38 Irritating to eyes and skin.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H350 May cause cancer.
H351 Suspected of causing cancer.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Training information

Follow training instructions when handling this material.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.