

Œ

Page 1 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

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

SEALANT AIR DUCT 310 ML

Art.: 9002102

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

Seam sealant

Sector of use [SU]:

SU 0 - Other

SU 1 - Agriculture, forestry, fishery

SU19 - Building and construction work

SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Chemical product category [PC]:

PC 1 - Adhesives, sealants

Process category [PROC]:

PROC19 - Manual activities involving hand contact

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

BTI Befestigungstechnik GmbH & Co. KG

Salzstr. 51

74653 Ingelfingen Tel.: +49 7940 141 141 Fax: +49 7940 141 9141 Email: info@bti.de Homepage: www.bti.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (BRC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture





Page 2 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

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

Hazard class Hazard category Hazard statement

Skin Sens. 1 H317-May cause an allergic skin reaction.

Aquatic Chronic 2 H411-Toxic to aquatic life with long lasting effects.

2.2 Label elements

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



H317-May cause an allergic skin reaction. H411-Toxic to aquatic life with long lasting effects.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

P261-Avoid breathing vapours. P273-Avoid release to the environment. P280-Wear protective gloves.

P333+P313-If skin irritation or rash occurs: Get medical advice / attention.

P501-Dispose of contents / container to an approved waste disposal facility.

EUH212-Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

1,2-benzisothiazol-3(2H)-one

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) 2-Octyl-2H-isothiazol-3-one

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

Water-based polymer dispersion

Softener

Filler

Auxiliary agents

3.1 Substances

n.a.

3.2 Mixtures

Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= $10 \mu m$)





Page 3 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Registration number (REACH)	01-2119489379-17-XXXX
Index	022-006-002
EINECS, ELINCS, NLP, REACH-IT List-No.	236-675-5
CAS	13463-67-7
content %	1-<5
Classification according to Regulation (EC) 1272/2008	Carc. 2, H351 (as inhalation)
(CLP), M-factors	

1,2-benzisothiazol-3(2H)-one	
Registration number (REACH)	
Index	613-088-00-6
EINECS, ELINCS, NLP, REACH-IT List-No.	220-120-9
CAS	2634-33-5
content %	0,01-<0,05
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H302
(CLP), M-factors	Skin Irrit. 2, H315
	Eye Dam. 1, H318
	Skin Sens. 1, H317
	Aquatic Acute 1, H400 (M=10)

2-Octyl-2H-isothiazol-3-one	
Registration number (REACH)	
Index	613-112-00-5
EINECS, ELINCS, NLP, REACH-IT List-No.	247-761-7
CAS	26530-20-1
content %	0,0015-<0,01
Classification according to Regulation (EC) 1272/2008	Aquatic Acute 1, H400 (M=100)
(CLP), M-factors	Aquatic Chronic 1, H410 (M=100)
	Eye Dam. 1, H318
	Acute Tox. 3, H301
	Acute Tox. 3, H311
	Acute Tox. 2, H330
	Skin Corr. 1, H314
	Skin Sens. 1A, H317

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one	
and 2-methyl-2H-isothiazol-3-one (3:1)	
Registration number (REACH)	
Index	613-167-00-5
EINECS, ELINCS, NLP, REACH-IT List-No.	
CAS	55965-84-9
content %	0,00015-<0,0015
Classification according to Regulation (EC) 1272/2008	Acute Tox. 3, H301
(CLP), M-factors	Aquatic Acute 1, H400 (M=100)
	Aquatic Chronic 1, H410 (M=100)
	Eye Dam. 1, H318
	Skin Corr. 1C, H314
	Skin Sens. 1A, H317
	Acute Tox. 2, H310
	Acute Tox. 2, H330





Page 4 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

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

Remove person from danger area.

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.

Call doctor immediately - have Data Sheet available.

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. In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

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.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures





Page 5 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

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

Prevent from entering drainage system.

6.3 Methods and material for containment and cleaning up

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

Or:

Pick up mechanically and dispose of according to Section 13.

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 or skin.

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

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

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

Keep out of access to unauthorised individuals.

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Store at room temperature.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Chemical Name	ide (in powder form containing 1 % or more of			f	Content %:1-	
Chemical Name	particles with	n aerodynamic diameter <= 10 μm)				<5
WEL-TWA: 10 mg/m3 (to	WEL-STEL:					
dust), 4 mg/m3 (respirable d						
Monitoring procedures:						
BMGV:				Other information	:	

© Chemical Name	Chemical Name Diisononyl phthalate			
WEL-TWA: 5 mg/m3	WEL-STEL:			





Page 6 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Monitoring procedures:				
BMGV:	Other information:	:		
© Chemical Name general dust	imit			Content %:
WEL-TWA: 10 mg/m3 (inhal. dust), 4	WEL-STEL:			
mg/m3 (respir. dust)				
Monitoring procedures:				
BMGV:		Other information:	:	

Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10							
μm)							
Area of application	Exposure route /	Effect on health	Descript	Value	Unit	Note	
	Environmental		or				
	compartment						
	Environment -		PNEC	0,184	mg/l		
	freshwater						
	Environment - marine		PNEC	0,018	mg/l		
				4			
	Environment - water,		PNEC	0,193	mg/l		
	sporadic						
	(intermittent) release						
	Environment -		PNEC	100	mg/l		
	sewage treatment						
	plant						
	Environment -		PNEC	1000	mg/kg		
	sediment, freshwater				dw		
	Environment -		PNEC	100	mg/kg		
	sediment, marine				dw		
	Environment - soil		PNEC	100	mg/kg		
					dw		
	Environment - oral		PNEC	1667	mg/kg		
	(animal feed)				feed		
Consumer	Human - oral	Long term,	DNEL	700	mg/kg		
		systemic effects			bw/d		
Workers / employees	Human - inhalation	Long term, local	DNEL	10	mg/m3		
		effects					

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)							
Area of application	Exposure route /	Effect on health	Descript	Value	Unit	Note	
	Environmental		or				
	compartment						
	Environment -		PNEC	0,003	mg/l		
	freshwater			39			
	Environment - marine		PNEC	0,003	mg/l		
				39			
	Environment -		PNEC	0,027	mg/kg		
	sediment, freshwater				dw		
	Environment -		PNEC	0,027	mg/kg		
	sediment, marine				dw		





Page 7 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

	Environment - soil		PNEC	0,01	mg/kg dw
	Environment - sewage treatment plant		PNEC	0,23	mg/l
	Environment - water, sporadic (intermittent) release		PNEC	0,003 39	mg/l
Consumer	Human - inhalation	Long term, local effects	DNEL	0,02	mg/m3
Consumer	Human - inhalation	Short term, local effects	DNEL	0,04	mg/m3
Consumer	Human - oral	Long term, systemic effects	DNEL	0,09	mg/kg bw/d
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,02	mg/m3
Workers / employees	Human - inhalation	Short term, local effects	DNEL	0,04	mg/m3

Diisononyl phthalate						
Area of application	Exposure route / Environmental compartment	Effect on health	Descript or	Value	Unit	Note
	Environment - soil Environment - oral (animal feed)		PNEC PNEC	30 150	mg/kg mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	15,3	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	220	mg/kg	
Consumer	Human - oral	Long term, systemic effects	DNEL	4,4	mg/kg	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	366	mg/kg	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	51,72	mg/m3	

Dolomite						
Area of application	Exposure route /	Effect on health	Descript	Value	Unit	Note
	Environmental		or			
	compartment					
Workers / employees	Human - inhalation	Long term,	DNEL	10	mg/m3	
		systemic effects				

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 (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine





Page 8 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

(Directive 2004/37/CE). | 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.

(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

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. EN 14042.

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:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN 374).

Recommended

Protective gloves made of natural rubber latex (EN 374).

Protective nitrile gloves (EN 374).

Minimum layer thickness in mm:

>=0,4

Permeation time (penetration time) in minutes:

> 480

Protective hand cream recommended.

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).





Page 9 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

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: Paste, solid.
Colour: Grey

Odour: Characteristic
Odour threshold: Not determined

pH-value: 7-9
Melting point/freezing point: 0 °C
Initial boiling point and boiling range: 100 °C
Flash point: n.a.

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: 1,63 g/ml Bulk density: Not determined Not determined Solubility(ies): Water solubility: Mixable

Partition coefficient (n-octanol/water):

Not determined
Auto-ignition temperature:

Not determined
Viscosity:

Explosive properties:

Not determined

9.2 Other information





Page 10 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

Miscibility: Not determined Fat solubility / solvent: Not determined Conductivity: Not determined Surface tension: Not determined Solvents content: Not determined

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

None known

10.5 Incompatible materials

None known

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

Art.: 9002102 Toxicity / effect	Endpoi	Value	Unit	Organism	Test method	Notes
	nt			9		
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
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						n.d.a.
toxicity - single						
exposure (STOT-SE):						
Specific target organ toxicity - repeated						n.d.a.
exposure (STOT-RE):						





Page 11 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Aspiration hazard:			n.d.a.
Symptoms:			n.d.a.

Toxicity / effect	Endpoi nt	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/Corrosio n)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosio n)	Not irritant, Mechanical irritation possible.
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Not sensitizising
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:				Salmonella typhimuri um	(Ames-Test)	Negative
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





Page 12 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Reproductive toxicity				Rat	OECD 414	No
(Developmental					(Prenatal	indications
toxicity):					Developmental	of such an
					Toxicity Study)	effect.
Specific target organ						Not irritant
toxicity - single						(respiratory
exposure (STOT-SE):						tract).
Symptoms:						mucous
						membrane
						irritation,
						coughing,
						respiratory
						distress,
						drying of the
						skin.
Specific target organ	NOAEL	3500	mg/kg/	Rat		90d
toxicity - repeated			d			
exposure (STOT-RE),						
oral:						
Specific target organ	NOAEC	10	mg/m3	Rat		90d
toxicity - repeated						
exposure (STOT-RE),						
inhalat.:						

1,2-benzisothiazol-3(2H)-one										
Toxicity / effect	Endpoi	Value	Unit	Organism	Test method	Notes				
	nt									
Acute toxicity, by oral	LD50	375	mg/kg	Rat						
route:										
Acute toxicity, by	LD50	4115	mg/kg	Rat						
dermal route:										
Skin corrosion/irritation:						Skin Irrit. 2				
Serious eye						Eye Dam. 1				
damage/irritation:										
Respiratory or skin				Guinea pig		Yes (skin				
sensitisation:						contact)				
Germ cell mutagenicity:						Negative				
Symptoms:						vomiting,				
						headaches,				
						gastrointestin				
						al				
						disturbances,				
						nausea				

2-Octyl-2H-isothiazol-3-one										
Toxicity / effect	Endpoi	Value	Unit	Organism	Test method	Notes				
	nt									
Acute toxicity, by oral	ATE	125	mg/kg							
route:										
Acute toxicity, by	ATE	311	mg/kg							
dermal route:										





Page 13 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Acute toxicity, by	ATE	0,27	mg/l/4h		Dust, Mist
inhalation:					
Symptoms:					ataxia, diarrhoea

Toxicity / effect	Endpoi	Value	Unit	Organism	Test method	Notes
	nt					
Acute toxicity, by oral	LD50	53	mg/kg	Rat		
route:						
Acute toxicity, by	LD50	660	mg/kg	Rabbit		
dermal route:						
Skin corrosion/irritation:				Rabbit		Corrosive
Serious eye				Rabbit		Corrosive
damage/irritation:						
Respiratory or skin				Guinea pig	OECD 406 (Skin	Yes (skin
sensitisation:					Sensitisation)	contact)
Aspiration hazard:						No
Symptoms:						diarrhoea,
						mucous
						membrane
						irritation,
						watering
						eyes, eyes,
						reddened

Diisononyl phthalate										
Toxicity / effect	Endpoi	Value	Unit	Organism	Test method	Notes				
	nt									
Acute toxicity, by oral	LD50	>10000	mg/kg	Rat	OECD 401 (Acute					
route:					Oral Toxicity)					
Acute toxicity, by	LD50	>3160	mg/kg	Rabbit						
dermal route:										
Acute toxicity, by	LC50	>4,4	mg/l/4h	Rat	Limit-Test	Aerosol				
inhalation:										
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant				
					Dermal					
					Irritation/Corrosio					
					n)					
Serious eye				Rabbit	OECD 405 (Acute	Not irritant				
damage/irritation:					Eye					
					Irritation/Corrosio					
					n)					
Respiratory or skin				Guinea pig	Regulation (EC)	No (skin				
sensitisation:					440/2008 B.6	contact)				
					(SKIN					
					SENSITISATION)					
Germ cell mutagenicity:					(Ames-Test)	Negative				
Symptoms:						diarrhoea,				
						nausea and				
						vomiting.				





Page 14 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

SECTION 12: Ecological information

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

SEALANT AIR DUCT 310 ML										
Art.: 9002102										
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes			
12.1. Toxicity to							n.d.a.			
fish:										
12.1. Toxicity to							n.d.a.			
daphnia:										
12.1. Toxicity to							n.d.a.			
algae:										
12.2. Persistence							n.d.a.			
and degradability:							_			
12.3.							n.d.a.			
Bioaccumulative										
potential:										
12.4. Mobility in							n.d.a.			
soil:										
12.5. Results of							n.d.a.			
PBT and vPvB										
assessment										
12.6. Other							n.d.a.			
adverse effects:							DOG			
Other information:							DOC-			
							elimination			
							degree(comp			
							lexing			
							organic			
							substance)>=			
							80%/28d:			
							n.a.			

Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm)											
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes				
12.1. Toxicity to	LC50	96h	>100	mg/l	Oncorhynchus	OECD 203					
fish:					mykiss	(Fish, Acute					
						Toxicity Test)					
12.1. Toxicity to	LC50	48h	>100	mg/l	Daphnia	OECD 202					
daphnia:					magna	(Daphnia sp.					
						Acute					
						Immobilisatio					
						n Test)					
12.1. Toxicity to	EC50	72h	16	mg/l	Pseudokirchne	U.S. EPA-					
algae:					riella	600/9-78-018					
					subcapitata						





Page 15 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

12.2. Persistence						Not relevant
and degradability:						for inorganic
						substances.
12.3.	BCF	42d	9,6			Not to be
Bioaccumulative potential:						expected
12.3.	BCF	14d	19-			Oncorhynchu
Bioaccumulative			352			s mykiss
potential:						
12.4. Mobility in						Negative
soil:						
12.5. Results of						No PBT
PBT and vPvB						substance,
assessment						No vPvB
						substance
Toxicity to			>5000	mg/l	Escherichia	
bacteria:					coli	
Toxicity to	LC0	24h	>1000	mg/l	Pseudomonas	
bacteria:			0		fluorescens	
Toxicity to	NOEC/NO		>1000	mg/kg	Eisenia	
annelids:	EL				foetida	
Water solubility:						Insoluble20°
						C

1,2-benzisothiazol-	1,2-benzisothiazol-3(2H)-one						
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to	LC50	96h	0,8-	mg/l	Oncorhynchus	OECD 203	
fish:			2,18	_	mykiss	(Fish, Acute	
						Toxicity Test)	
12.1. Toxicity to	EC50	48h	1,1-	mg/l	Daphnia	OECD 202	
daphnia:			4,4		magna	(Daphnia sp.	
						Acute	
						Immobilisatio	
						n Test)	
12.1. Toxicity to	EC50	96h	0,055	mg/l	Pseudokirchne		
algae:					riella		
					subcapitata		
12.1. Toxicity to	ErC50	72h	0,11	mg/l	Pseudokirchne	OECD 201	
algae:					riella	(Alga,	
					subcapitata	Growth	
						Inhibition	
						Test)	
12.2. Persistence						OECD 303	Hardly
and degradability:						(Simulation	biodegradabl
						Test -	e
						Aerobic	
						Sewage	
						Treatment)	





Page 16 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

12.3. Bioaccumulative potential:	Log Pow		1,11			A notable biological accumulation potential is not to be expected (LogPow 1-3).
Toxicity to	EC50	16h	0,4	mg/l	Pseudomonas	
bacteria:					putida	

2-Octyl-2H-isothia:	zol-3-one						
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to	LC50	96h	0,047	mg/l	Oncorhynchus		
fish:					mykiss		
12.1. Toxicity to	NOEC/NO	35d	0,008	mg/l	Pimephales		
fish:	EL		5		promelas		
12.1. Toxicity to	NOEC/NO	21d	0,003	mg/l	Daphnia	OECD 202	
daphnia:	EL				magna	(Daphnia sp.	
						Acute	
						Immobilisatio	
						n Test)	
12.1. Toxicity to	EC50	48h	0,32	mg/l	Daphnia		
daphnia:					magna		
12.1. Toxicity to	ErC10	48h	0,000	mg/l	Navicula	OECD 201	
algae:			224		pelliculosa	(Alga,	
						Growth	
						Inhibition	
						Test)	
12.1. Toxicity to	EC50	72h	0,001	mg/l	Navicula	OECD 201	
algae:			29		pelliculosa	(Alga,	
						Growth	
						Inhibition	
10.0 P			25	0/		Test)	NY . 191
12.2. Persistence			25	%			Not readily
and degradability:							biodegradabl
TD ::/	ECCO		20.2	/1	1		e
Toxicity to	EC50		30,2	mg/l	activated		
bacteria:	EC20	3h	7.2	/1	sludge activated	OECD 209	
Toxicity to	EC20	3n	7,3	mg/l			
bacteria:					sludge	(Activated	
						Sludge,	
						Respiration Inhibition	
						Test (Carbon	
						and	
						Ammonium	
						Oxidation))	
						OAIuauoii))	

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes





Page 17 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

12.1. Toxicity to	LC50	96h	0,28	mg/l	Lepomis		
fish:					macrochirus		
12.1. Toxicity to	LC50	96h	0,19-	mg/l	Oncorhynchus	OECD 203	
fish:			0,22		mykiss	(Fish, Acute	
						Toxicity Test)	
12.1. Toxicity to	NOEC/NO	28d	0,098	mg/l	Oncorhynchus	OECD 210	
fish:	EL				mykiss	(Fish, Early-	
						Life Stage	
						Toxicity Test)	
12.1. Toxicity to	NOEC/NO	21d	0,004	mg/l	Daphnia	OECD 211	
daphnia:	EL				magna	(Daphnia	
*						magna	
						Reproduction	
						Test)	
12.1. Toxicity to	EC50	48h	0,16	mg/l	Daphnia	,	
daphnia:			,		magna		
12.1. Toxicity to	EC50	72h	0,048	mg/l	Pseudokirchne	OECD 201	
algae:					riella	(Alga,	
					subcapitata	Growth	
					1	Inhibition	
						Test)	
12.1. Toxicity to	NOEC/NO	72h	0,001	mg/l	Pseudokirchne	OECD 201	
algae:	EL		2	_	riella	(Alga,	
					subcapitata	Growth	
					1	Inhibition	
						Test)	
12.2. Persistence			>60	%	activated	OECD 301 D	Does not
and degradability:					sludge	(Ready	conform
						Biodegradabil	with EU
						ity - Closed	classification
						Bottle Test)	
12.3.	BCF		3,6				calculated
Bioaccumulative							value
potential:							
12.3.	Log Pow		0,401-				Does not
Bioaccumulative			0,486				conform
potential:							with EU
							classification
12.5. Results of							No PBT
PBT and vPvB							substance,
assessment							No vPvB
							substance





Page 18 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Toxicity to	EC50	3h	7,92	mg/l	activated	OECD 209
bacteria:					sludge	(Activated
						Sludge,
						Respiration
						Inhibition
						Test (Carbon
						and
						Ammonium
						Oxidation))

Diisononyl phthala	te						
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to	LC50	96h	>102	mg/l	Brachydanio	92/69/EC	
fish:					rerio		
12.1. Toxicity to	EC50	48h	>=74	mg/l	Daphnia	84/449/EEC	
daphnia:					magna	C.2	
12.1. Toxicity to	NOEC/NO	21d	>=100	mg/l	Daphnia	OECD 202	
daphnia:	EL				magna	(Daphnia sp.	
						Acute	
						Immobilisatio	
						n Test)	
12.1. Toxicity to	NOEC/NO	72h	88	mg/l	Scenedesmus		
algae:	EL				subspicatus		
12.1. Toxicity to	EC50	72h	>88	mg/l	Scenedesmus	84/449/EEC	
algae:					subspicatus	C.3	
12.2. Persistence		28d	81	%	activated	Regulation	Readily
and degradability:					sludge	(EC)	biodegradabl
						440/2008 C.4-	e
						C	
						(DETERMIN	
						ATION OF	
						'READY'	
						BIODEGRAD	
						ABILITY -	
						CO2	
						EVOLUTION	
10.0	* **		0.0			TEST)	. 1
12.3.	Log Kow		8,8-			OECD 117	Analogous
Bioaccumulative			9,7			(Partition	conclusion
potential:						Coefficient (n-	
						octanol/water)	
						- HPLC	
12.3.	BCF	14d	<3			method)	Analogous
Bioaccumulative	DCF	140	< 3				conclusion
potential:							Coliciusion
12.4. Mobility in	Koc		>5000				
soil:	1 TOC		/3000				
12.4. Mobility in	H (Henry)		0,000	atm*m			
soil:			00149	3/mol			





Page 19 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

Toxicity to bacteria:	EC50	30min	>83,9	mg/l	activated sludge	OECD 209 (Activated Sludge,
						Respiration
						Inhibition
						Test (Carbon
						and
						Ammonium
						Oxidation))
Other organisms:	NOEC/NO	56d	>982,	mg/kg	Eisenia	
	EL		4		foetida	
Other organisms:	LC50	14d	>7372	mg/kg	Eisenia	OECD 207
					foetida	(Earthworm,
						Acute
						Toxicity
						Tests)

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 09 waste adhesives and sealants containing organic solvents or other hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

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

15 01 10 packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

General statements

14.1. UN number: 3077

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-OCTYL-2H-ISOTHIAZOL-3-ONE)

14.3. Transport hazard class(es):

9 III

14.4. Packing group:







Page 20 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

Classification code: M7 LQ: 5 kg

14.5. Environmental hazards: environmentally hazardous

Tunnel restriction code:

Transport by sea (IMDG-code)

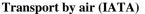
14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-OCTYL-2H-

ISOTHIAZOL-3-ONE)

14.3. Transport hazard class(es):914.4. Packing group:IIIEmS:F-A, S-FMarine Pollutant:Yes

14.5. Environmental hazards: environmentally hazardous



14.2. UN proper shipping name:

Environmentally hazardous substance, solid, n.o.s. (2-OCTYL-2H-ISOTHIAZOL-3-ONE)

14.3. Transport hazard class(es): 9
14.4. Packing group: III

14.5. Environmental hazards: environmentally hazardous

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained. All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

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

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

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 the protection of young people at work (national implementation of the Directive 94/33/EC)!

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!

Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):









Page 21 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-
		tier requirements	tier requirements
E2		200	500

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): 0,53 % Directive 2010/75/EU (VOC): 8,7 g/l

Treated goods as per Regulation (EU) No. 528/2012 must display specific information on the label.

Please note Article 58 paragraph (3) subparagraph 2 of Regulation (EU) No. 528/2012.

Approval of the biocidal active substance may mean that special conditions are required for marketing the treated goods.

These are indicated in the approval of the active substance.

Observe incident regulations.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:

2, 3, 8, 11, 12, 13, 14, 15, 16

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

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

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Skin Sens. 1, H317	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.

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).

H330 Fatal if inhaled.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H351 Suspected of causing cancer by inhalation.

H317 May cause an allergic skin reaction.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.



(GB)

Page 22 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

H315 Causes skin irritation.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Skin Sens. — Skin sensitization

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Carc. — Carcinogenicity

Acute Tox. — Acute toxicity - oral

Skin Irrit. — Skin irritation

Eye Dam. — Serious eye damage

Aquatic Acute — Hazardous to the aquatic environment - acute

Acute Tox. — Acute toxicity - dermal Acute Tox. — Acute toxicity - inhalation

Skin Corr. — Skin corrosion

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds

approx. approximately Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

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)

BSEF The International Bromine Council

bw body weight

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European Community
ECHA European Chemicals Agency
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)

etc. et cetera EU European Union



(GB

Page 23 of 23

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

Revision date / version: 11.05.2021 / 0011

Replacing version dated / version: 12.11.2020 / 0010

Valid from: 11.05.2021 PDF print date: 02.06.2021 SEALANT AIR DUCT 310 ML

Art.: 9002102

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

IARC International Agency for Research on Cancer

IATA International Air Transport Association

IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform Chemical Information Database

IUPACInternational Union for Pure Applied Chemistry

LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicablen.av. not availablen.c. not checkedn.d.a. no data available

OECD Organisation for Economic Co-operation and Development

org. organic

PBT persistent, bioaccumulative and toxic

PE Polyethylene

PNEC Predicted No Effect Concentration

ppm parts per million PVC Polyvinylchloride

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)

SVHC Substances of Very High Concern

Tel. Telephone

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

wwt 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.