Trade name: Armaflex Ultima SF990

Current version : 7.0.0, issued: 20.02.2024

Replaced version: 6.1.0, issued: 05.08.2021

Region: GB

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

1.1 Product identifier

Trade name Armaflex Ultima SF990

1.2 Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses of the substance or mixture Adhesive for processing Armaflex Ultima and all other synthetic rubber based Armaprene materials

Uses advised against No data available.

1.3 Details of the supplier of the safety data sheet

Address

Armacell GmbH Robert-Bosch-Straße 10 48153 Münster Deutschland Telephone no. +49 (0) 251 - 7603-200 Fax no. +49 (0) 251 - 7603-561 e-mail info.de@armacell.com

Information provided by / telephone Dr. Heribert Quante, Tel.: +49 (0) 251 - 7603-227

Advice on Safety Data Sheet heribert.guante@armacell.com

Address Armacell UK Ltd Mars Street OL9 6LY Oldham United Kingdom

email:

info.armaform@armacell.com

1.4 Emergency telephone number

For medical advice (in German and English): +49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Aquatic Chronic 3; H412 Skin Sens. 1; H317 STOT RE 2; H373i

Classification information

Classification and labelling with respect to specific target organ toxicity (repeated exposure) are based on toxicological studies performed on the product (mixture).

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008: Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



Signal word Warning

Hazardous component(s) to be indicated on label: 2-methyl-2H-isothiazol-3-one



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Hazard statement(s) H317	May cause an allergic skin reaction.
H373i	May cause damage to organs through prolonged or repeated exposure if inhaled.
H412	Harmful to aquatic life with long lasting effects.
Hazard statements (EU)	
EUH208	Contains 1,2-benzisothiazol-3(2H)-one, reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1). May produce an allergic reaction.
Precautionary statement(s)
P260	Do not breathe mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container to a facility in accordance with local and national regulations.

2.3 Other hazards

PBT assessment

The components of this product are not considered to be a PBT. vPvB assessment

The components of this product are not considered to be a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

CAS / EC / Index / REACH no Classification (EC) 1272/2008 (CLP) Concentration % 1 zinc oxide - <th></th> <th>Hazardous ingredients</th> <th>i</th> <th></th> <th></th> <th></th>		Hazardous ingredients	i			
REACH no Aquatic Acute 1; H400 >= 0.25 - <	No	Substance name				
1 Zinc oxide 1 1314-13-2 Aquatic Acute 1; H400 >= 0.25 - < 2.50 wt% 215-222-5 Aquatic Chronic 1; H410 >= 0.25 - < 2.50 wt% 030-013-00-7 01-2119463881-32 2.50 wt% 2 Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene			Classification (EC) 1272/2008 (CLP)	Concent	ration	%
1314-13-2 Aquatic Acute 1; H400 >= 0.25 <		REACH no				
215-222-5 Aquatic Chronic 1; H410 Austic Chronic 1; H410 030-013-00-7 01-2119463881-32 Aquatic Chronic 1; H410 2 Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene isobutylene 68610-51-5 Aquatic Chronic 4; H413 < 2.50 271-867-2 Repr. 2; H361d - 01-2119496062-39 3 1,2-benzisothiazol-3(2H)-one 2634-33-5 Acute Tox. 4; H302 < 220-120-9 Eye Dam. 1; H318 613-088-00-6 Skin Irrit. 2; H315 01-2120761540-60 Skin Sens. 1; H317 Aquatic Chronic 2; H411 4 2-methyl-2H-isothiazol-3-one 2682-20-4 Acute Tox. 3; H301 2020-239-6 Acute Tox. 3; H311 613-326-00-9 Acute Tox. 3; H314 613-326-00-9 Skin Cor. 1B; H314 9 01-2120764690-50 Skin Cor. 1B; H314 Eye Dam. 1; H318 Skin Cor. 1B; H314	1	zinc oxide				
030-013-00-7 01-2119463881-32 1 2 Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5 271-867-2 Aquatic Chronic 4; H413 Repr. 2; H361d < 2.50 wt% - 01-2119496062-39 2634-33-5 Acute Tox. 4; H302 0.10 wt% 220-120-9 Eye Dam. 1; H318 0.10 wt% 613-088-00-6 Skin Irrit. 2; H315 0.10 wt% 4 2-methyl-2H-isothiazol-3-one 0.10 wt% 4 2-methyl-2H-isothiazol-3-one 0.10 wt% 220-239-6 Acute Tox. 3; H301 0.10 wt% 4 2-methyl-2H-isothiazol-3-one 0.10 wt% 01-2120764690-50 Skin Corx. 18; H314 0.10 wt% 9 01-2120764690-50 Skin Corx. 18; H314 0.10 wt% <td></td> <td>1314-13-2</td> <td>Aquatic Acute 1; H400</td> <td>>=</td> <td>0.25 - < 2.50</td> <td>wt%</td>		1314-13-2	Aquatic Acute 1; H400	>=	0.25 - < 2.50	wt%
01-2119463381-32 Image: Constraint of the system of the syst		215-222-5	Aquatic Chronic 1; H410			
2 Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 4 68610-51-5 271-867-2 01-2119496062-39 Aquatic Chronic 4; H413 Repr. 2; H361d < 2.50 wt% 3 1,2-benzisothiazol-3(2H)-one 2634-33-5 220-120-9 Acute Tox. 4; H302 Eye Dam. 1; H318 < 0.10 wt% 613-088-00-6 01-2120761540-60 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 0.10 wt% 4 2-methyl-2H-isothiazol-3-one 0.10 wt% 2682-20-4 613-326-00-9 Acute Tox. 3; H301 Acute Tox. 2; H330 0.10 wt% 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318 0.10 wt%		030-013-00-7				
isobutylene 68610-51-5 Aquatic Chronic 4; H413 < 2.50 wt% 271-867-2 Repr. 2; H361d 01-2119496062-39 Repr. 2; H361d 2634-33-5 Acute Tox. 4; H302 2634-33-5 Acute Tox. 4; H302 2634-33-5 Acute Tox. 4; H318 2634-33-5 Acute Tox. 4; H302 </th <td></td> <td>01-2119463881-32</td> <td></td> <td></td> <td></td> <td></td>		01-2119463881-32				
68610-51-5 Aquatic Chronic 4; H413 <	2	Phenol, 4-methyl-, rea	action products with dicyclopentadiene and			
271-867-2 Repr. 2; H361d 01-2119496062-39 - 3 1,2-benzisothiazol-3(2H)-one 2634-33-5 Acute Tox. 4; H302 220-120-9 Eye Dam. 1; H318 613-088-00-6 Skin Irrit. 2; H315 01-2120761540-60 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 4 2-methyl-2H-isothiazol-3-one 2682-20-4 Acute Tox. 3; H301 613-326-00-9 Acute Tox. 3; H311 613-326-00-9 Acute Tox. 2; H330 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318 Eye Dam. 1; H318		isobutylene				
- -		68610-51-5	Aquatic Chronic 4; H413	<	2.50	wt%
3 1,2-benzisothiazol-3(2H)-one 2634-33-5 Acute Tox. 4; H302 < 0.10 220-120-9 Eye Dam. 1; H318 613-088-00-6 Skin Irrit. 2; H315 01-2120761540-60 Skin Sens. 1; H317 Aquatic Acute 1; H400 4 2-methyl-2H-isothiazol-3-one 2682-20-4 Acute Tox. 3; H301 < 613-326-00-9 Acute Tox. 3; H311 613-326-00-9 Acute Tox. 3; H314 220-239-6 Acute Tox. 2; H330 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318		271-867-2	Repr. 2; H361d			
3 1,2-benzisothiazol-3(2H)-one 2634-33-5 Acute Tox. 4; H302 < 0.10 220-120-9 Eye Dam. 1; H318 613-088-00-6 Skin Irrit. 2; H315 01-2120761540-60 Skin Sens. 1; H317 Aquatic Acute 1; H400 4 2-methyl-2H-isothiazol-3-one 2682-20-4 Acute Tox. 3; H301 < 613-326-00-9 Acute Tox. 3; H311 613-326-00-9 Acute Tox. 3; H314 220-239-6 Acute Tox. 2; H330 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318		-				
2634-33-5 Acute Tox. 4; H302 < 0.10 wt% 220-120-9 Eye Dam. 1; H318 0.10 wt% 613-088-00-6 Skin Irrit. 2; H315 0.10 wt% 01-2120761540-60 Skin Sens. 1; H317 Aquatic Acute 1; H400		01-2119496062-39				
220-120-9 Eye Dam. 1; H318 613-088-00-6 Skin Irrit. 2; H315 01-2120761540-60 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 4 2-methyl-2H-isothiazol-3-one 2682-20-4 Acute Tox. 3; H301 613-326-00-9 Acute Tox. 3; H311 613-326-00-9 Acute Tox. 2; H330 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318 Eye Dam. 1; H318	3	1,2-benzisothiazol-3(2	2H)-one			
613-088-00-6 Skin Irrit. 2; H315 01-2120761540-60 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 4 2-methyl-2H-isothiazol-3-one 2682-20-4 Acute Tox. 3; H301 220-239-6 Acute Tox. 3; H311 613-326-00-9 Acute Tox. 2; H330 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318 Eye Dam. 1; H318		2634-33-5	Acute Tox. 4; H302	<	0.10	wt%
01-2120761540-60 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Acute 1; H400 4 2-methyl-2H-isothiazol-3-one 2682-20-4 Acute Tox. 3; H301 < 0.10 220-239-6 Acute Tox. 3; H311 < 0.10 wt% 613-326-00-9 Acute Tox. 2; H330 < 0.10 wt% 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318		220-120-9	Eye Dam. 1; H318			
Aquatic Acute 1; H400 Aquatic Chronic 2; H411 Multic Acute 1; H400 4 2-methyl-2H-isothiazol-3-one 2682-20-4 Acute Tox. 3; H301 < 0.10 220-239-6 Acute Tox. 3; H311 613-326-00-9 Acute Tox. 2; H330 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318		613-088-00-6	Skin Irrit. 2; H315			
Aquatic Chronic 2; H411 Aquatic Chronic 2; H411 4 2-methyl-2H-isothiazol-3-one 2682-20-4 Acute Tox. 3; H301 < 0.10 220-239-6 Acute Tox. 3; H311 613-326-00-9 Acute Tox. 2; H330 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318		01-2120761540-60	Skin Sens. 1; H317			
4 2-methyl-2H-isothiazol-3-one 2682-20-4 Acute Tox. 3; H301 < 0.10 wt% 220-239-6 Acute Tox. 3; H311 0.10 wt% 613-326-00-9 Acute Tox. 2; H330 0.10 wt% 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318			Aquatic Acute 1; H400			
2682-20-4 Acute Tox. 3; H301 <			Aquatic Chronic 2; H411			
220-239-6 Acute Tox. 3; H311 613-326-00-9 Acute Tox. 2; H330 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318 Eye Dam. 1; H318	4	2-methyl-2H-isothiazo	ol-3-one			
613-326-00-9 Acute Tox. 2; H330 01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318 Event Correct		2682-20-4	Acute Tox. 3; H301	<	0.10	wt%
01-2120764690-50 Skin Corr. 1B; H314 Eye Dam. 1; H318		220-239-6	Acute Tox. 3; H311			
Eye Dam. 1; H318		613-326-00-9	Acute Tox. 2; H330			
		01-2120764690-50	Skin Corr. 1B; H314			
Skin Sens. 1A; H317			Eye Dam. 1; H318			
			Skin Sens. 1A, H317			
Aquatic Acute 1; H400			Aquatic Acute 1, H400			
Aquatic Chronic 1; H410			Aquatic Chronic 1, H410			
EUH071						
5 reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -	5	reaction mass of: 5-c	hloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -			
isothiazol-3-one (3:1)		isothiazol-3-one (3:1)				



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55965-84-9	Acute Tox. 2; H310	<	0.0015	wt%
-	Acute Tox. 2; H330			
613-167-00-5	Acute Tox. 3; H301			
-	Aquatic Acute 1, H400			
	Aguatic Chronic 1; H410			
	EUH071			
	Eye Dam. 1; H318			
	Skin Corr. 1C; H314			
	Skin Sens. 1A; H317			

Full Text for all H-phrases and EUH-phrases: pls. see section 16

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	-	-	M = 1	M = 1
3	-	Skin Sens. 1; H317: C >= 0.05%	-	-
4	-	Skin Sens. 1A; H317: C >= 0.0015%	M = 10	M = 1
5	В	Skin Sens. 1A; H317: C >= 0.0015% Eye Irrit. 2; H319: C >= 0.06% Skin Irrit. 2; H315: C >= 0.06% Skin Corr. 1C; H314: C >= 0.6% Eye Dam. 1; H318: C >= 0.6%	M = 100	M = 100

Full text for the notes: pls. see section 16 "Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)".

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. In case of persisting adverse effects, consult a physician. In case of allergic symptoms, especially respiratory tract related, seek medical help immediately.

After inhalation

When inhaled remove to fresh air and seek medical aid.

After skin contact

In case of contact with skin wash off with water. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

After ingestion

Do not induce vomiting. Rinse the mouth thoroughly with water. Never give anything by mouth to an unconscious person. Call a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Allergic symptoms

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray jet; Carbon dioxide; Dry chemical extinguisher; Foam

Unsuitable extinguishing media High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Zinc oxides; Carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid contact with skin, eyes and clothing. Refer to protective measures listed in sections 7 and 8.



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For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

- 6.3 Methods and material for containment and cleaning up Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).
- 6.4 Reference to other sections No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Remove contaminated clothing and shoes and launder thoroughly before reusing.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed in a cool, well-ventilated place. Protect from heat and direct sunlight.

Recommended storage temperature					
Value	5	-	35	°C	
Requirements for storage rooms and vessels					A

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products

Substances to be avoided, see section 10.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

dermal

DNEL, DMEL and PNEC values

No	Substance name			CAS / EC no)
	Route of exposure	Exposure time	Effect	Value	
1	zinc oxide			1314-13-2 215-222-5	
	dermal	Long term (chronic)	systemic	83	mg/kg/day
	with reference to: Zn Comments: insoluble			·	
	inhalative	Long term (chronic)	systemic	5	mg/m³
	with reference to: Zn Comments: insoluble				
	inhalative	Long term (chronic)	local	0.5	mg/m³
	with reference to: Zn Comments: insoluble				
2	Phenol, 4-methyl-, reacti	on products with dicyclopent	adiene and isobutylene	68610-51-5 271-867-2	
	dermal	Long term (chronic)	systemic	0.42	mg/kg bw/day
	inhalative	Long term (chronic)	systemic	0.29	mg/m³
	DNEL value (consumer)				
	Substance name			CAS / EC no	
No	Substance name			UNUT LUTIC	
No	Route of exposure	Exposure time	Effect	Value	,
		Exposure time	Effect		
No 1	Route of exposure	Exposure time	Effect systemic	Value 1314-13-2	mg/kg/day

systemic

83

mg/kg/day

Long term (chronic)



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	inhalative	Long term (chronic)	systemic	2.5	mg/m³
	with reference to: Zn Comments: insoluble				~~~~~
	Phenol, 4-methyl-, react	ion products with dicyclopent	adiene and isobutylene	68610-51- 271-867-2	
	oral	Long term (chronic)	systemic	0.04	mg/kg bw/day
	dermal	Long term (chronic)	systemic	0.21	mg/kg bw/day
	inhalative	Long term (chronic)	systemic	0.07	mg/m³
_	PNEC values				
lo	Substance name			CAS / EC	no
	ecological compartment	t Type		Value	
	zinc oxide				
	water	fresh wat	er	20.6	µg/L
	with reference to: Zn			· · ·	
	water	marine w	ater	6.1	µg/L
					· •
	with reference to: Zn				

				0/10/20110	
	ecological compartment	Туре	Value		
1	zinc oxide		1314-13-2		
			215-222-5		
	water	fresh water	20.6	µg/L	
	with reference to: Zn				
	water	marine water	6.1	µg/L	
	with reference to: Zn				
	water	fresh water sediment	117.8	mg/kg	
	water	marine water sediment	56.5	mg/kg	
	with reference to: Zn, dry weight				
	soil	-	35.6	mg/kg	
	with reference to: Zn, dry weight				
	sewage treatment plant	-	100	µg/L	
2	Phenol, 4-methyl-, reaction products	with dicyclopentadiene and isobutylene	68610-51-5	5	
			271-867-2		
	water	fresh water	0.01	mg/L	
	water	marine water	0.002	mg/L	
	water	fresh water sediment	426.26	mg/kg dry weight	
	water	marine water sediment	85.25	mg/kg dry weight	
	soil	-	85.16	mg/kg dry weight	
	sewage treatment plant	-	100	mg/L	
	secondary poisoning	-	1.7	mg/kg food	

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, local exhaust at the work station if necessary.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of insufficient ventilation and during spray application respiratory protection necessary. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

oonnanionit aco oi protoot		
neoprene		
nitrile rubber		
butyl rubber		
>	0.7	mm
>	480	min
	neoprene nitrile rubber butyl rubber >	nitrile rubber butyl rubber > 0.7

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation



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liquid					
Form liquid					
Colour blue					
Odour characteristic					
pH value Value	9	- 10			
	9	- 10			
Boiling point / boiling range No data available					
Melting point/freezing point No data available					
Decomposition temperature					
No data available					
Flash point					
No data available					
Ignition temperature No data available					
Flammability					
No data available					
Lower explosion limit No data available					
Upper explosion limit					
No data available					
Vapour pressure					
No data available					
Relative vapour density No data available					
Relative density					
No data available					
Density					
Value	appr.	1.0	g/cm ³		
Reference temperature		20	°C		
Solubility					
No data available					
Partition coefficient n-octanol/water (log value)					
No Substance name		CAS no.		EC no.	
1 Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	-	68610-51-5		271-867-2	
log Pow			7.93	••	
Reference temperature with reference to	pH 7		25	°C	
Method	OECD 123				
Source	ECHA				
Kinematic viscosity					
No data available					
Particle characteristics					
No data available					
.2 Other information					
Other information					
No data available.					

SECTION 10: Stability and reactivity

10.1 Reactivity

Dangerous reactions are not expected if the product is handled according to its intended use.



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10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

- **10.3 Possibility of hazardous reactions** None, when used as directed.
- **10.4 Conditions to avoid** Keep from freezing.
- **10.5** Incompatible materials None known.

10.6 Hazardous decomposition products No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

	e oral toxicity				
No	Substance name		CAS no.		EC no.
1	zinc oxide		1314-13-2		215-222-5
_D50		>		5000	mg/kg bodyweight
Spec	sies	rat			
Neth	od	OECD 401			
Sour	ce	ECHA			
2	Phenol, 4-methyl-, reaction products with		68610-51-5		271-867-2
	dicyclopentadiene and isobutylene				
LD50)	>		5000	mg/kg bodyweight
Spec	ies	rat			
Meth	od	OECD 401			
Sour	ce	ECHA			
Eval	uation/classification	Based on ava	ilable data, the c	assification c	riteria are not met.
Acut	e dermal toxicity				
No	Substance name		CAS no.		EC no.
1	zinc oxide		1314-13-2		215-222-5
LD50)	>		2000	mg/kg bodyweight
Spec		rat			0.0, ,
Meth		OECD 402			
Sour		ECHA			
2	Phenol, 4-methyl-, reaction products with		68610-51-5		271-867-2
	dicyclopentadiene and isobutylene	-			
LD50		>		2000	mg/kg bodyweight
Spec		rat			
Meth		OECD 402			
Sour	ce	ECHA			
Sour		ECHA	ilable data, the c	assification c	riteria are not met.
Sour Evalı Acut	ce uation/classification e inhalational toxicity	ECHA		assification c	
Sour Evalı <mark>Acut</mark> No	ce uation/classification e inhalational toxicity Substance name	ECHA	CAS no.	assification c	EC no.
Sour Evalı Acut No 1	ce uation/classification e inhalational toxicity Substance name zinc oxide	ECHA Based on ava			EC no. 215-222-5
Sour Evalu Acut No 1 LC5(ce uation/classification e inhalational toxicity Substance name zinc oxide	ECHA	CAS no.	5.7	EC no. 215-222-5 mg/l
Sour Evalu Acut No 1 LC50 Dura	ce uation/classification te inhalational toxicity Substance name zinc oxide) tion of exposure	ECHA Based on ava	CAS no.		EC no. 215-222-5
Sour Evalu Acut No 1 LC50 Dura State	ce uation/classification te inhalational toxicity Substance name zinc oxide) tion of exposure e of aggregation	ECHA Based on ava	CAS no.	5.7	EC no. 215-222-5 mg/l
Sour Evalu Acut No 1 LC50 Dura State Spec	ce uation/classification e inhalational toxicity Substance name zinc oxide o tion of exposure e of aggregation ties	ECHA Based on ava	CAS no.	5.7	EC no. 215-222-5 mg/l
Sour Evalu Acut No 1 LC50 Dura State Spec Meth	ce uation/classification e inhalational toxicity Substance name zinc oxide o tion of exposure o f aggregation ties od	ECHA Based on ava	CAS no.	5.7	EC no. 215-222-5 mg/l
Sour Evalu Acut No 1 LC50 Dura State Spec Meth	ce uation/classification e inhalational toxicity Substance name zinc oxide o tion of exposure o f aggregation ties od	ECHA Based on ava	CAS no.	5.7	EC no. 215-222-5 mg/l
Sour Eval Acut No 1 LC50 Dura State Spec Meth Sour	ce uation/classification e inhalational toxicity Substance name zinc oxide o tion of exposure o f aggregation ties od	ECHA Based on ava	CAS no.	5.7	EC no. 215-222-5 mg/l
Sour Evalu Acut No 1 LC50 Dura State Spec Spec Sour Skin	ce uation/classification te inhalational toxicity Substance name zinc oxide tion of exposure of aggregation cies od ce corrosion/irritation Substance name	ECHA Based on ava	CAS no. 1314-13-2 CAS no.	5.7	EC no. 215-222-5 mg/l h
Sour Evalu Acut No 1 LC50 Dura State Spec Meth Sour Skin No 1	ce uation/classification te inhalational toxicity Substance name zinc oxide tion of exposure of aggregation cies od ce corrosion/irritation Substance name zinc oxide	ECHA Based on ava	CAS no. 1314-13-2	5.7	EC no. 215-222-5 mg/l h
Sour Evalue Acut No 1 LC50 Dura State Spec Skin No 1 Sspec	ce uation/classification re inhalational toxicity Substance name zinc oxide o tion of exposure e of aggregation ties od ce corrosion/irritation Substance name zinc oxide cies	ECHA Based on ava	CAS no. 1314-13-2 CAS no.	5.7	EC no. 215-222-5 mg/l h
Sour Evalue Acut No 1 LC50 Dura State Spec Meth Sour Skin Spec Meth	ce uation/classification e inhalational toxicity Substance name zinc oxide o o tion of exposure o of aggregation ties od ce corrosion/irritation Substance name zinc oxide ties od ce corrosion/irritation Substance name zinc oxide ties od ce corrosion/irritation Substance name zinc oxide ties od ce corrosion/irritation Substance name zinc oxide ties od ce ce corrosion/irritation Substance name zinc oxide ties od ce ce ce corrosion/irritation ce corrosion/irritation ce ce ce corrosion/irritation ce ce ce corrosion/irritation ce ce corrosion/irritation ce ce ce corrosion/irritation ce ce ce ce ce ce ce c	ECHA Based on ava	CAS no. 1314-13-2 CAS no.	5.7	EC no. 215-222-5 mg/l h
Sour Evalue Acut No 1 LC50 Dura State Spec Meth Sour Skin Spec Meth	ce uation/classification e inhalational toxicity Substance name zinc oxide o o tion of exposure o of aggregation ties od ce corrosion/irritation Substance name zinc oxide ties od ce corrosion/irritation Substance name zinc oxide ties od ce corrosion/irritation Substance name zinc oxide ties od ce corrosion/irritation Substance name zinc oxide ties od ce ce corrosion/irritation Substance name zinc oxide ties od ce ce ce corrosion/irritation ce corrosion/irritation ce ce ce corrosion/irritation ce ce ce corrosion/irritation ce ce corrosion/irritation ce ce ce corrosion/irritation ce ce ce ce ce ce ce c	ECHA Based on ava	CAS no. 1314-13-2 CAS no.	5.7	EC no. 215-222-5 mg/l h
Sour Evalu Acut No 1 LC50 Dura State Spec Meth Sour Skin Spec Meth Sour Spec Meth Sour	ce uation/classification e inhalational toxicity Substance name zinc oxide o o tion of exposure o of aggregation ties od ce corrosion/irritation Substance name zinc oxide ties od ce corrosion/irritation Substance name zinc oxide ties od ce corrosion/irritation Substance name zinc oxide ties od ce corrosion/irritation Substance name zinc oxide ties od ce ce corrosion/irritation Substance name zinc oxide ties od ce ce ce corrosion/irritation ce corrosion/irritation ce ce ce corrosion/irritation ce ce ce corrosion/irritation ce ce corrosion/irritation ce ce ce corrosion/irritation ce ce ce ce ce ce ce c	ECHA Based on ava	CAS no. 1314-13-2 CAS no.	5.7	EC no. 215-222-5 mg/l h
Sour Evalu Acut No 1 LC50 Dura State Spec Meth Sour Spec Meth Sour Evalu	ce ation/classification e inhalational toxicity Substance name zinc oxide o faggregation cles od ce corrosion/irritation Substance name zinc oxide cles od ce ation	ECHA Based on ava	CAS no. 1314-13-2 CAS no.	5.7	EC no. 215-222-5 mg/l h
Sour Evalu Acut No 1 LC50 Dura State Spec Meth Sour Skin Spec Meth Sour Spec Meth Sour	ce ation/classification e inhalational toxicity Substance name zinc oxide o tion of exposure o of aggregation ties od ce corrosion/irritation Substance name zinc oxide ties od ce	ECHA Based on ava	CAS no. 1314-13-2 CAS no. 1314-13-2	5.7	EC no. 215-222-5 mg/l h EC no. 215-222-5
Sour Evalu Acut No 1 LC50 Dura State Spec Meth Sour Spec Meth Sour Evalu	ce ation/classification e inhalational toxicity Substance name zinc oxide o corrosion/irritation Substance name zinc oxide ce corrosion/irritation Substance name zinc oxide ce ation Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	ECHA Based on ava	CAS no. 1314-13-2 CAS no. 1314-13-2	5.7	EC no. 215-222-5 mg/l h EC no. 215-222-5
Sour Evalu Acut No 1 LC50 Dura State Spec Meth Sour Skin Spec Meth Sour Skin 2	ce ation/classification e inhalational toxicity Substance name zinc oxide corrosion/irritation Substance name zinc oxide ce ation Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	ECHA Based on ava	CAS no. 1314-13-2 CAS no. 1314-13-2	5.7	EC no. 215-222-5 mg/l h EC no. 215-222-5



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	luation luation/classification	low-irritant Based on available data, the classification criteria	are not met		
	ious eye damage/irritation	Based on available data, the elacomeater enteria			
	Substance name	CAS no. E	C no.		
1	zinc oxide		15-222-5		
Spe		rabbit			
Meth		OECD 405			
Sou		ECHA			
	luation	non-irritant	-/		
2	Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	68610-51-5 2	71-867-2		
Spe	cies	rabbit			
Meth		OECD 405			
Sou		ECHA			
	luation luation/classification	non-irritant Based on available data, the classification criteria	are not mot		
		Based on available data, the classification criteria	are not met.		
	piratory or skin sensitisation				
No			C no.		
<u>1</u>	zinc oxide		15-222-5		
	te of exposure	respiratory tract			
Sou	rce luation	ECHA non-sensitizing			
	luation	Based on available data, the classification criteria	are not met		
	te of exposure	Skin	a. 5 not mot.		
Spe		Guinea pig			
Meth		OECD 406			
Sou		ECHA			
	luation	non-sensitizing			
	luation/classification	Based on available data, the classification criteria			
2	Phenol, 4-methyl-, reaction products with	68610-51-5 2	71-867-2		
Rou	dicyclopentadiene and isobutylene te of exposure	Skin			
Spe		guinea pig			
Meth		OECD 406			
Sou		ECHA			
	luation	non-sensitizing			
<u>Geri</u> No	m cell mutagenicity Substance name	CAS no. E	C no.		
1	Phenol, 4-methyl-, reaction products with		71-867-2		
	dicyclopentadiene and isobutylene				
	e of examination	in vitro gene mutation study in bacteria			
Spe		S. typhimurium, other: TA 98, TA 100, TA 102, TA	1535, TA 1537, TA 1538		
Meth		OECD 471			
Sou	rce luation/classification	ECHA Based on available data, the classification criteria	are not met		
	e of examination	In vitro mammalian cytogenicity			
Spe		Chinese hamster Ovary (CHO)			
Meth		OECD 473			
Sou		ECHA			
	luation/classification	Based on available data, the classification criteria	are not met.		
	e of examination	In vitro mammalian cell gene mutation test			
Туре		Chinese hamster Ovary (CHO)			
Type Spe		OECD 476			
Type Spee Meth		LECHA			
Type Spee Meth Sour	rce	ECHA Based on available data, the classification criteria	are not met		
Type Spe Meth Sour Eval	rce luation/classification	ECHA Based on available data, the classification criteria	are not met.		
Type Spec Meth Sour Eval	rce luation/classification roduction toxicity	Based on available data, the classification criteria			
Type Spec Meth Sour Eval Rep No	rce luation/classification roduction toxicity Substance name	Based on available data, the classification criteria CAS no. E	C no.		
Type Spe Meth Sour Eval	rce luation/classification roduction toxicity Substance name Phenol, 4-methyl-, reaction products with	Based on available data, the classification criteria CAS no. E			
Type Spec Meth Sour Eval Rep No 1	rce luation/classification roduction toxicity Substance name Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	Based on available data, the classification criteria CAS no. E 68610-51-5 2	C no.		
Type Spec Meth Sour Eval Rep No 1	rce luation/classification roduction toxicity Substance name Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene te of exposure	Based on available data, the classification criteria CAS no. E 68610-51-5 2 oral	C no.		
Type Spec Meth Sour Eval Rep No 1	rce luation/classification roduction toxicity Substance name Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene te of exposure e of examination	Based on available data, the classification criteria CAS no. E 68610-51-5 2	C no.		
Type Spec Meth Sour Eval Rep No 1 Rou Type	rce luation/classification roduction toxicity Substance name Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene te of exposure e of examination cies	Based on available data, the classification criteria CAS no. E 68610-51-5 2 oral Toxicity study	C no.		
Type Spec Meth Sour Eval Rep No 1 Rou Type Spec	rce luation/classification Substance name Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene te of exposure e of examination cies hod	Based on available data, the classification criteria CAS no. E 68610-51-5 2 oral Toxicity study rabbit	C no. 71-867-2		



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No data available				
STOT - single exposure				
No data available				
STOT - repeated exposure				
No	Product Name			
1	Armaflex Ultima SF990			
Route of exposure		inhalation		
Evaluation/classification		May cause damage to organs through prolonged or repeated exposure		
Aspiration hazard				
No d	No data available			

Delayed and immediate effects as well as chronic effects from short and long-term exposure Inhalation of vapours may lead to headache, drowsiness and dizziness.

11.2 Information on other hazards

Endocrine disrupting properties

No data available.

Other information

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Toxic	city to fish (acute)				
No	Substance name	CAS no.		EC no.	
1	Phenol, 4-methyl-, reaction products with	68610-51-5		271-867-2	
	dicyclopentadiene and isobutylene				
LC50		>	0.2	mg/l	
Durat	tion of exposure		96	h	
Species		Oncorhynchus mykiss			
Methe	od	OECD 203			
Sourc	ce	ECHA			
Toxic	city to fish (chronic)				
	ata available				
Toxic	city to Daphnia (acute)				
No	Substance name	CAS no.		EC no.	
1	Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	68610-51-5		271-867-2	
EC50)	>	0.2	mg/l	
Durat	tion of exposure		48	h	
Spec	ies	Daphnia magna			
Methe	od	OECD 202			
Sourc	ce	ECHA			
Taula	ity to Doubuic (chaonic)				
	city to Daphnia (chronic)				
No data available					
Toxic	city to algae (acute)				
No	Substance name	CAS no.		EC no.	
1				271-867-2	
1	Phenol, 4-methyl-, reaction products with	68610-51-5		2/1-00/-2	
1	Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	68610-51-5		2/1-00/-2	
1 ErC5	dicyclopentadiene and isobutylene	68610-51-5	0.2		_
· ErC5	dicyclopentadiene and isobutylene	-			_
ErC5	dicyclopentadiene and isobutylene 0 tion of exposure	-	0.2 72	mg/l	
ErC5	dicyclopentadiene and isobutylene 0 tion of exposure ies	>	0.2 72	mg/l	_
ErC5 Durat Spec	dicyclopentadiene and isobutylene 0 tion of exposure ies od	> Pseudokirchneriella subcap	0.2 72	mg/l	
ErC5 Durat Spec Metho Sourc	dicyclopentadiene and isobutylene 0 tion of exposure ies od	> Pseudokirchneriella subcap OECD 201	0.2 72	mg/l	
ErC50 Durat Speci Metho Source	dicyclopentadiene and isobutylene 0 tion of exposure ies od ce	> Pseudokirchneriella subcap OECD 201	0.2 72	mg/l	
ErC5 Durat Speci Metho Source Toxic No da	dicyclopentadiene and isobutylene 0 tion of exposure ies od ce city to algae (chronic) ata available eria toxicity	> Pseudokirchneriella subcap OECD 201	0.2 72	mg/l	
ErC5 Durat Speci Metho Source Toxic No da	dicyclopentadiene and isobutylene 0 tion of exposure ies od ce ce city to algae (chronic) ata available	> Pseudokirchneriella subcap OECD 201	0.2 72	mg/l	
ErC5 Durat Speci Metho Source Toxic No da Bacto No da	dicyclopentadiene and isobutylene 0 tion of exposure ies od ce city to algae (chronic) ata available eria toxicity ata available	> Pseudokirchneriella subcap OECD 201	0.2 72	mg/l	
ErC5 Durat Speci Metho Source Toxic No da Bacte No da	dicyclopentadiene and isobutylene 0 tion of exposure ies od ce city to algae (chronic) ata available eria toxicity	> Pseudokirchneriella subcap OECD 201	0.2 72	mg/l	



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12.3 Bioaccumulative potential

Parti	Partition coefficient n-octanol/water (log value)					
No	Substance name		CAS no.		EC no.	
1	Phenol, 4-methyl-, reaction products with		68610-51-5		271-867-2	
	dicyclopentadiene and isobutylene					
log F	log Pow			7.93		
Refe	Reference temperature			25	°C	
with	with reference to					
Meth	Method					
Sour	Source					

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment			
PBT assessment	The components of this product are not considered to be a PBT.		
vPvB assessment	The components of this product are not considered to be a vPvB.		

12.6 Endocrine disrupting properties No data available.

12.7 Other adverse effe

Other adverse effects No data available.

12.8 Other information

Other information

Do not discharge into drains or waters and do not dispose of in public landfills. Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility.

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 UN number or ID number

Not classified as dangerous in the meaning of transport regulations.

14.2 UN proper shipping name

Not classified as dangerous in the meaning of transport regulations.

14.3 Transport hazard class(es)

Not classified as dangerous in the meaning of transport regulations.

14.4 Packing group

Not classified as dangerous in the meaning of transport regulations.

14.5 Environmental hazards

Not classified as dangerous in the meaning of transport regulations.

14.6 Special precautions for user No data available.



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14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information

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

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation) According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII. No 3				
The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII.				
No	Substance name	CAS no.	EC no.	No
1	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9	75
2	2-methyl-2H-isothiazol-3-one	2682-20-4	220-239-6	75
3	chloroprene	126-99-8	204-818-0	75
4	potassium hydroxide	1310-58-3	215-181-3	75

This product is not subject to Part 1 or 2 of Annex I.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Further information

Authors responsible for the compilation of the material safety data sheet: UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de.

The information is based on our current knowledge however it does not represent a guarantee of product properties nor does it create any legal obligation.

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

EUH071	Corrosive to the respiratory tract.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)

Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.



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Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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