Current version: 2.0.0, issued: 15.03.2022 Replaced version: 1.0.0, issued: 12.10.2021 Region: GB

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

1.1 Product identifier

Trade name

ArmaProtect ™ FC2

ArmaProtect ™ FW3

ArmaProtect ™ EFC1

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

Relevant identified uses of the substance or mixture

fire protection material

For industrial and professional use only

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

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.quante@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 information

This product does not meet the classification and labelling criteria given in the Regulation (EC) No 1272/2008 (CLP).

2.2 Label elements

Not relevant

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

Chemical characterization

Mixture (preparation); polymer matrix

Hazardous ingredients

This product does not contain substances to be mentioned according to EU Regulation No 1907/2006 (REACH), annex II.

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. Adhere to personal protective measures when giving first aid.

Current version: 2.0.0, issued: 15.03.2022 Replaced version: 1.0.0, issued: 12.10.2021 Region: GB

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air. In the event of symptoms take medical treatment.

After skin contact

Wash off with soap and water. Get medical attention if pain still 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). Get medical attention if pain still persists.

After ingestion

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

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Skin irritation; Eye irritation

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam; Carbon dioxide; Extinguishing powder; Water spray jet; Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

Unsuitable extinguishing media

High power water iet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon oxides (COx)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear full protective suit. Cool endangered containers with water spray jet. 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

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid dust formation.

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.

6.3 Methods and material for containment and cleaning up

Collect mechanically. Avoid raising dust. When collected, handle material as described under the section heading "Disposal considerations".

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation at the work area (local exhaust ventilation, if necessary). Avoid the formation and deposition of dust.

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. Provide eye wash fountain in work area. Have emergency shower available. Do not inhale dust.

Advice on protection against fire and explosion

Pay attention to general rules of internal fire prevention. No special measures necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place.

Current version: 2.0.0, issued: 15.03.2022 Replaced version: 1.0.0, issued: 12.10.2021 Region: GB

Requirements for storage rooms and vessels

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

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

No parameters available for monitoring.

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 dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified. Particle filter P2

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.

Appropriate Material Natural rubber, NR

Material thickness 0.6 mm Breakthrough time 480 min

Other

Normal chemical work clothing.

Environmental exposure controls

Do not allow to enter drains or water courses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation	
solid	
Form/Colour	
Solid substance	
black	
Odour	
weak	
pH value	
Not applicable	
Source	supplier
Boiling point / boiling range	
No data available	
Melting point/freezing point	
No data available	
Sublimation point / sublimation range	
Not applicable	
Source	supplier
Decomposition temperature	
No data available	
Flash point	
Not applicable	

EU safety data sheet

Trade name: ArmaProtect ™ FC2

Current version: 2.0.0, issued: 15.03.2022 Replaced version: 1.0.0, issued: 12.10.2021 Region: GB

Source	supplier		
Ignition temperature			
Not applicable	1 "		
Source	supplier		
Auto-ignition temperature			
Not applicable Source	supplier		
	Suppliel		
Oxidising properties not oxidizing			
Explosive properties The product does not have explosive properties.			
Flammability Not applicable			
Source	supplier		
Lower explosion limit	1		
No data available			
Upper explosion limit			
No data available			
Vapour pressure			
Not applicable	1 1		
Source	supplier		
Relative vapour density No data available			
Relative density			
No data available			
Density			
Value	appr.	1.20	g/cm³
Reference temperature		20	°C
Source	supplier		
Solubility in water			
Source Comments	supplier insoluble		
	Insolubio		
Solubility No data available			
Partition coefficient n-octanol/water (log value)			
No data available			
Viscosity			
No data available			
Particle characteristics			
No data available			

9.2 Other information

Ī	Other information
	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Extremes of temperatures. Protect from heat and direct sunlight. Avoid formation of dust.

10.5 Incompatible materials

No data available.

Current version: 2.0.0, issued: 15.03.2022 Replaced version: 1.0.0, issued: 12.10.2021 Region: GB

10.6 Hazardous decomposition products

None if stored, handled and transported properly. In case of fire: see section 5.

SECTION 11: Toxicological information

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

	Information on hazard classes as defined in Regulation (EC) No 1272/2008		
	tute oral toxicity		
No	Product Name		
1	ArmaProtect ™ FC2		
	ArmaProtect ™ FW3		
Sour	ArmaProtect ™ EFC1	aupplior	
	ce uation/classification	supplier	
Evalu	dation/classification	Based on available data, the classification criteria are not met.	
Acut	e dermal toxicity		
No	Product Name		
1	ArmaProtect ™ FC2		
	ArmaProtect ™ FW3		
0	ArmaProtect ™ EFC1	1	
Sour	ce uation/classification	supplier	
Evalu	uation/classification	Based on available data, the classification criteria are not met.	
Acut	e inhalational toxicity		
No	Product Name		
1	ArmaProtect ™ FC2		
	ArmaProtect ™ FW3		
	ArmaProtect ™ EFC1	Decides with the decide of the second	
∟valı	uation/classification	Based on available data, the classification criteria are not met.	
Skin	corrosion/irritation		
No	Product Name		
1	ArmaProtect ™ FC2		
	ArmaProtect ™ FW3		
	ArmaProtect ™ EFC1		
Sour		supplier	
Evalu	uation/classification	Based on available data, the classification criteria are not met.	
Serio	ous eye damage/irritation		
	Product Name		
1	ArmaProtect ™ FC2		
	ArmaProtect ™ FW3		
	ArmaProtect ™ EFC1		
Sour	ce	supplier	
		supplier Based on available data, the classification criteria are not met.	
Evalu	ce uation/classification	''	
Evalu Resp	ce uation/classification piratory or skin sensitisation	''	
Evalu	ce uation/classification piratory or skin sensitisation Product Name	''	
Resp No	ce uation/classification piratory or skin sensitisation	''	
Resp No 1	ce Lation/classification Diratory or skin sensitisation Product Name ArmaProtect ™ FC2 ArmaProtect ™ FW3 ArmaProtect ™ EFC1	Based on available data, the classification criteria are not met.	
Resp No 1	ce Lation/classification Diratory or skin sensitisation Product Name ArmaProtect ™ FC2 ArmaProtect ™ FW3 ArmaProtect ™ EFC1 e of exposure	Based on available data, the classification criteria are not met. Skin	
Resp No 1	ce pation/classification piratory or skin sensitisation Product Name ArmaProtect ™ FC2 ArmaProtect ™ FW3 ArmaProtect ™ EFC1 e of exposure ce	Based on available data, the classification criteria are not met. Skin supplier	
Resp No 1	ce Lation/classification Diratory or skin sensitisation Product Name ArmaProtect ™ FC2 ArmaProtect ™ FW3 ArmaProtect ™ EFC1 e of exposure	Based on available data, the classification criteria are not met. Skin	
Resp No 1 Route Source Evalue	ce pation/classification product Name ArmaProtect ™ FC2 ArmaProtect ™ FW3 ArmaProtect ™ EFC1 e of exposure ce pation/classification	Based on available data, the classification criteria are not met. Skin supplier	
Resp No 1 Route Source Evalue	ce pation/classification product Name ArmaProtect ™ FC2 ArmaProtect ™ FW3 ArmaProtect ™ EFC1 e of exposure ce pation/classification n cell mutagenicity	Based on available data, the classification criteria are not met. Skin supplier	
Resp No 1 Route Source Evalue	ce pation/classification product Name ArmaProtect ™ FC2 ArmaProtect ™ FW3 ArmaProtect ™ EFC1 e of exposure ce pation/classification n cell mutagenicity Product Name	Based on available data, the classification criteria are not met. Skin supplier	
Resp No 1 Route Source Evalue Germ	ce pation/classification product Name ArmaProtect ™ FC2 ArmaProtect ™ FW3 ArmaProtect ™ EFC1 e of exposure ce pation/classification n cell mutagenicity	Based on available data, the classification criteria are not met. Skin supplier	
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Resp No 1 Route Source Evalue Germ	ce Lation/classification Diratory or skin sensitisation Product Name ArmaProtect ™ FC2 ArmaProtect ™ FW3 ArmaProtect ™ EFC1 e of exposure ce Lation/classification n cell mutagenicity Product Name ArmaProtect ™ FC2 ArmaProtect ™ FC2 ArmaProtect ™ FC3 ArmaProtect ™ FC4 ArmaProtect ™ FW3 ArmaProtect ™ FW3 ArmaProtect ™ EFC1	Based on available data, the classification criteria are not met. Skin supplier	
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Resp No 1 Route Soure Evalue T Soure Evalue Repr No	ce pation/classification product Name ArmaProtect ™ FC2 ArmaProtect ™ EFC1 e of exposure ce pation/classification n cell mutagenicity Product Name ArmaProtect ™ FC2 ArmaProtect ™ FC3 ArmaProtect ™ FC4 Ce pation/classification roduction toxicity Product Name ArmaProtect ™ FC4 ArmaProtect ™ FC7 ArmaProtect ™ FC8 ArmaProtect ™ FC8 ArmaProtect ™ FC9	Skin supplier Based on available data, the classification criteria are not met. Skin supplier Based on available data, the classification criteria are not met. supplier Based on available data, the classification criteria are not met.	
Resp No 1 Routi Souri Evalu Gern No 1 Souri Evalu Repr No 1	ce dation/classification product Name ArmaProtect ™ FC2 ArmaProtect ™ EFC1 e of exposure ce dation/classification n cell mutagenicity Product Name ArmaProtect ™ FC2 ArmaProtect ™ FC2 ArmaProtect ™ FC2 ArmaProtect ™ FC2 ArmaProtect ™ FC3 ArmaProtect ™ FW3 ArmaProtect ™ EFC1 ce dation/classification roduction toxicity Product Name ArmaProtect ™ FC2 ArmaProtect ™ EFC1 ce dation/classification roduction toxicity Product Name ArmaProtect ™ FC2 ArmaProtect ™ FC3 ArmaProtect ™ FC3 ArmaProtect ™ FW3 ArmaProtect ™ FW3 ArmaProtect ™ FW3 ArmaProtect ™ FW3 ArmaProtect ™ EFC1 ce	Skin supplier Based on available data, the classification criteria are not met. Skin supplier Based on available data, the classification criteria are not met. supplier Based on available data, the classification criteria are not met.	
Resp No 1 Route Sourrevalue Fealue Repr No 1	ce pation/classification product Name ArmaProtect ™ FC2 ArmaProtect ™ EFC1 e of exposure ce pation/classification n cell mutagenicity Product Name ArmaProtect ™ FC2 ArmaProtect ™ FC3 ArmaProtect ™ FC4 Ce pation/classification roduction toxicity Product Name ArmaProtect ™ FC4 ArmaProtect ™ FC7 ArmaProtect ™ FC8 ArmaProtect ™ FC8 ArmaProtect ™ FC9	Skin supplier Based on available data, the classification criteria are not met. Skin supplier Based on available data, the classification criteria are not met. supplier Based on available data, the classification criteria are not met.	

Current version : 2.0.0, issued: 15.03.2022Replaced version: 1.0.0, issued: 12.10.2021Region: GB

No	Product Name	
1	ArmaProtect ™ FC2 ArmaProtect ™ FW3 ArmaProtect ™ EFC1	
Sour		supplier
Evalu	uation/classification	Based on available data, the classification criteria are not met.
STO	Γ - single exposure	
No	Product Name	
1	ArmaProtect ™ FC2	
	ArmaProtect ™ FW3	
	ArmaProtect ™ EFC1	
Source		supplier
Evaluation/classification		Based on available data, the classification criteria are not met.
STO	Г - repeated exposure	
No	Product Name	
1	ArmaProtect ™ FC2	
	ArmaProtect ™ FW3	
	ArmaProtect ™ EFC1	
		supplier
Evalu	Evaluation/classification Based on available data, the classification criteria are not met.	
Aspi	Aspiration hazard	

Eye contact may cause mechanical irritation through dust particles. Skin contact may cause mechanical irritation through dust particles.

11.2 Information on other hazards
Endocrine disrupting properties

Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics

No data available.

Other information

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)	
No data available	
Toxicity to fish (chronic)	
No data available	
Toxicity to Daphnia (acute)	
No data available	
Toxicity to Daphnia (chronic)	
No data available	
Toxicity to algae (acute)	
No data available	
Toxicity to algae (chronic)	
No data available	
Bacteria toxicity	
No data available	

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

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

Current version: 2.0.0, issued: 15.03.2022 Replaced version: 1.0.0, issued: 12.10.2021 Region: GB

No data available

12.7 Other adverse effects

No data available

12.8 Other information

Other information

Ecological data are not available.

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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

dispose of in accordance with local regulation.

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 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

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.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances subject to restriction as listed in Annex XVII of the REACH regulation (EC) 1907/2006.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

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

Sources of key data used to compile the data sheet:

Current version: 2.0.0, issued: 15.03.2022 Replaced version: 1.0.0, issued: 12.10.2021 Region: GB

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.

Creation of the safety data sheet

UMCO GmbH

Georg-Wilhelm-Str. 187, D-21107 Hamburg

Tel.: +49 40 / 555 546 300 Fax: +49 40 / 555 546 357 e-mail: umco@umco.de

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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