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

#### 1.1 Product identifier

Trade name

ArmaProtect ™ FW1

ArmaProtect ™ FW2

ArmaProtect ™ EFC2

## 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

#### 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.

#### After inhalation

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

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#### 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

No data available.

#### 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 jet

#### 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). Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances.

#### 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.

#### Recommended storage temperature

Value < 50 °C

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#### 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.

## 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.

#### 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.

#### 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

Form/Colour  solid  Various  Colour  odourless  PH value  No data available  Boiling point / boiling range No data available  Melting point/freezing point No data available  Decomposition temperature  Value  Source  Source  Supplier  Flash point  Not applicable  Source  supplier  Jignition temperature  Not applicable  Source  Supplier  Explosive properties  The product does not have explosive properties.	State of aggregation			
solid various  Odour odourless  PH value No data available  Boiling point / boiling range No data available  Welting point/freezing point No data available  Decomposition temperature  Value Source Source Supplier  Flash point Not applicable Source supplier  Explosive properties  Explosive properties	solid			
Various  Odour odourless  pH value No data available  Boiling point / boiling range No data available  Melting point/freezing point No data available  Decomposition temperature Value Source Supplier  Flash point Not applicable Source supplier  Explosive properties	Form/Colour			
Odour odourless  pH value No data available  Boiling point / boiling range No data available  Melting point/freezing point No data available  Decomposition temperature  Value  Source  Supplier  Flash point Not applicable Source  supplier  Ignition temperature  Not applicable Source  supplier  Explosive properties	solid			
odourless  PH value No data available  Boiling point / boiling range No data available  Melting point/freezing point No data available  Decomposition temperature Value Source Source Source Value Source	various			
PH value No data available  Boiling point / boiling range No data available  Melting point/freezing point No data available  Decomposition temperature Value Source Source Supplier  Flash point Not applicable Source supplier  Ignition temperature Not applicable Source supplier  Explosive properties	Odour			
No data available  Boiling point / boiling range No data available  Melting point/freezing point No data available  Decomposition temperature  Value Source	odourless			
No data available	pH value			
No data available  Melting point/freezing point No data available  Decomposition temperature  Value > 150 °C Source supplier  Flash point Not applicable Source supplier  Ignition temperature Not applicable Source supplier  Explosive properties	No data available			
No data available  Melting point/freezing point No data available  Decomposition temperature  Value > 150 °C Source supplier  Flash point Not applicable Source supplier  Ignition temperature Not applicable Source supplier  Explosive properties	Boiling point / boiling range			
No data available    Decomposition temperature				
Value > 150 °C Source supplier  Flash point Not applicable Source supplier  Ignition temperature Not applicable Source supplier  Explosive properties	Melting point/freezing point			
Value	No data available			
Source supplier  Flash point Not applicable Source supplier  Ignition temperature Not applicable Source supplier  Explosive properties	Decomposition temperature			
Flash point  Not applicable Source supplier  Ignition temperature Not applicable Source supplier  Explosive properties	Value	>	150	°C
Not applicable Source supplier  Ignition temperature Not applicable Source supplier  Explosive properties	Source	supplier		
Not applicable Source supplier  Ignition temperature Not applicable Source supplier  Explosive properties	Flash point			
Source supplier  Ignition temperature  Not applicable  Source supplier  Explosive properties	Not applicable			
Not applicable Source supplier  Explosive properties		supplier		
Not applicable Source supplier  Explosive properties	Ignition temperature			
Explosive properties	Not applicable			
	Source	supplier		
	Explosive properties			
	The product does not have explosive properties.			

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Flammability	
Not applicable	<u></u>
Source	supplier
Lower explosion limit	
Not applicable	
Source	supplier
Upper explosion limit	
Not applicable	
Source	supplier
Vapour pressure	
No data available	
Relative vapour density	
No data available	
Relative density	
No data available	
Density	
<b>Density</b> Value	1580 - 1950 g/m³
Density Value Reference temperature	20 °C
<b>Density</b> Value	1580 - 1950 g/m³ 20 °C supplier
Density Value Reference temperature	20 °C
Density Value Reference temperature Source Solubility in water Source	20 °C supplier supplier
Density Value Reference temperature Source Solubility in water	20 °C supplier
Density Value Reference temperature Source Solubility in water Source Comments Solubility	20 °C supplier supplier
Density Value Reference temperature Source Solubility in water Source Comments	20 °C supplier supplier
Density Value Reference temperature Source Solubility in water Source Comments  Solubility No data available Partition coefficient n-octanol/water (log value)	20 °C supplier supplier
Density Value Reference temperature Source Solubility in water Source Comments  Solubility No data available	20 °C supplier supplier
Density Value Reference temperature Source Solubility in water Source Comments  Solubility No data available  Partition coefficient n-octanol/water (log value) No data available  Viscosity	20 °C supplier supplier
Density Value Reference temperature Source Solubility in water Source Comments  Solubility No data available  Partition coefficient n-octanol/water (log value) No data available  Viscosity Not applicable	supplier  supplier  insoluble
Density Value Reference temperature Source Solubility in water Source Comments  Solubility No data available  Partition coefficient n-octanol/water (log value) No data available  Viscosity	20 °C supplier supplier
Density Value Reference temperature Source Solubility in water Source Comments  Solubility No data available  Partition coefficient n-octanol/water (log value) No data available  Viscosity Not applicable	supplier  supplier insoluble

## 9.2 Other information

 2 Other information		
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

Do not overheat to avoid thermal decomposition. High temperatures.

#### 10.5 Incompatible materials

strong acids; strong bases

#### 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

Acut	Acute oral toxicity	
No	Product Name	
1	ArmaProtect ™ FW1	
	ArmaProtect ™ FW2	
	ArmaProtect ™ EFC2	



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Trade name: ArmaProtect ™ FW1

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		T
Source	ce lation/classification	supplier Based on available data, the classification criteria are not met.
		Dadod on available data, the diabonication official are not met.
	e dermal toxicity Product Name	
1	ArmaProtect ™ FW1	
	ArmaProtect ™ FW2	
	ArmaProtect ™ EFC2	
Source		supplier
Evalu	ation/classification	Based on available data, the classification criteria are not met.
	e inhalational toxicity	
No 1	Product Name ArmaProtect ™ FW1	
•	ArmaProtect ™ FW2	
	ArmaProtect ™ EFC2	
Evalu	ation/classification	Based on available data, the classification criteria are not met.
Skin	corrosion/irritation	
No	Product Name	
1	ArmaProtect ™ FW1	
	ArmaProtect ™ FW2	
Source	ArmaProtect ™ EFC2	supplier
	lation/classification	Based on available data, the classification criteria are not met.
	ous eye damage/irritation	
	Product Name	
1	ArmaProtect ™ FW1	
	ArmaProtect ™ FW2	
	ArmaProtect ™ EFC2	P. C.
Source	ce lation/classification	supplier Based on available data, the classification criteria are not met.
		Dased on available data, the classification chieffa are not met.
	Product Name	
No 1	Product Name ArmaProtect ™ FW1	
•	ArmaProtect ™ FW2	
	ArmaProtect ™ EFC2	
	e of exposure	Skin
Source	ce lation/classification	supplier
		Based on available data, the classification criteria are not met.
	n cell mutagenicity	
No 1	Product Name ArmaProtect ™ FW1	
•	ArmaProtect ™ FW2	
	ArmaProtect ™ EFC2	
Source		supplier
Evalu	ation/classification	Based on available data, the classification criteria are not met.
	oduction toxicity	
No	Product Name	
1	ArmaProtect ™ FW1 ArmaProtect ™ FW2	
	ArmaProtect ™ EFC2	
Source	ce	supplier
Evalu	ation/classification	Based on available data, the classification criteria are not met.
Carc	inogenicity	
No	Product Name	
1	ArmaProtect ™ FW1	
	ArmaProtect ™ FW2 ArmaProtect ™ EFC2	
Source		supplier
	nation/classification	Based on available data, the classification criteria are not met.
	Γ - single exposure	
No	Product Name	
1	ArmaProtect ™ FW1	
	ArmaProtect ™ FW2	
C	ArmaProtect ™ EFC2	Tanasta.
Source	ce	supplier

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

STO	STOT - repeated exposure		
No	Product Name		
1	ArmaProtect ™ FW1		
	ArmaProtect ™ FW2		
	ArmaProtect ™ EFC2		
Sour	Source supplier		
Fvalı	/aluation/classification Based on available data, the classification criteria are not met		

A suivetie a benead

Aspiration hazard

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

#### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact may cause mechanical irritation through dust particles

#### 11.2 Information on other hazards

**Endocrine disrupting properties** 

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

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

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#### 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:

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

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relationship.

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