

# SAFETY DATA SHEET

FR4-45 BASE CREAM

## Section 1. Identification

**GHS product identifier** : FR4-45 BASE CREAM  
**SDS code** : 64000300B

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

#### Identified uses

Waterborne paint. Professional use Industrial use

#### Uses advised against

All other uses

**Product use** : Filler for interior use

### Supplier's details

MAPAERO SAS  
 10, Avenue de la Rijole CS30098  
 09103 PAMIERS Cedex  
 France

**e-mail address of person responsible for this SDS** : PSRA\_PAMIERS@akzonobel.com

**Emergency telephone number (with hours of operation)** : +33 (0)5 34 01 34 01  
 +33 (0)5 61 60 23 30

## 2. Hazards identification

**GHS Classification** : SKIN SENSITIZATION - Category 1  
 HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 3  
 HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 3

### GHS label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : May cause an allergic skin reaction.  
 Harmful to aquatic life with long lasting effects.

### Precautionary statements

**General** : Not applicable.

**Prevention** : Wear protective gloves. Avoid release to the environment. Avoid breathing vapor.

**Response** : Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.

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**Date of previous issue** : 7-12-2022

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## 2. Hazards identification

- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

## 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	%	CAS number	Official Gazette notice reference number	
			CSCCL	ISHL
Titanium dioxide	≤10	13463-67-7	1-558; 5-5225	2-(3)-509
C(M)IT/MIT(3:1)	≤0.10	55965-84-9	5-5235; 9-378	Not available.

## 4. First aid measures

- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Skin contact** : May cause an allergic skin reaction.

#### Over-exposure signs/symptoms

- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## 7. Handling and storage

### Handling

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- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## 8. Exposure controls/personal protection

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Occupational exposure limits

None.

### Individual protection measures

- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.  
Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: White.
<b>Odor</b>	: Characteristic.
<b>pH</b>	: <input checked="" type="checkbox"/> [DIN EN 1262]
<b>Melting point/freezing point</b>	: Not available.
<b>Boiling point, initial boiling point, and boiling range</b>	: Not available.
<b>Flash point</b>	: <input checked="" type="checkbox"/> closed cup: 105°C (221°F) [Pensky-Martens]
<b>Flammability</b>	: Not available.
<b>Lower and upper explosion limit/flammability limit</b>	: Not available.
<b>Vapor pressure</b>	:

Ingredient name	Vapor Pressure at 20 °C			Vapor pressure at 50 °C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
ammonia, anhydrous	72.31	9.6				
octamethylcyclotetrasiloxane	0.99	0.13				
2-butoxyethanol	0.75	0.1				
Polyether modified siloxane	0.75	0.1				
decamethylcyclopentasiloxane	0.25	0.033				
aluminium hydroxide	<0.075	<0.01				
N,N'-ethylenedi(stearamide)	0.00087	0.00012				
1,1'-(ethane-1,2-diyl)bis [pentabromobenzene]	<0.00000075	<0.0000001	OECD 104			
propylidynetrimethanol	0	0				

<b>Relative vapor density</b>	: <input checked="" type="checkbox"/> Not available.
<b>Density</b>	: <input checked="" type="checkbox"/> 1.508 g/cm <sup>3</sup> [DIN EN ISO 2811-1]
<b>Solubility(ies)</b>	:

Media	Result
<input checked="" type="checkbox"/> cold water	Soluble [OESO (TG 105)]

<b>Partition coefficient: n-octanol/water</b>	: <input checked="" type="checkbox"/> Not applicable.
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**Auto-ignition temperature** :

Ingredient name	°C	°F	Method
<input checked="" type="checkbox"/> 2-butoxyethanol	230	446	DIN 51794
Paraffin waxes and Hydrocarbon waxes	244.85	472.7	
Ethene, homopolymer	330 to 410	626 to 770	
dodecamethylcyclohexasiloxane	368 to 371	694.4 to 699.8	
decamethylcyclopentasiloxane	372	701.6	ASTM E 659-78
N,N'-ethylenedi(stearamide)	380	716	DIN 51794
octamethylcyclotetrasiloxane	384 to 387	723.2 to 728.6	ASTM E 659
ammonia, anhydrous	651	1203.8	

**Decomposition temperature** : Not available.

## 9. Physical and chemical properties

**Viscosity** :  Kinematic (room temperature): 431 mm<sup>2</sup>/s (431 cSt) [DIN EN ISO 3219]  
Kinematic (40°C (104°F)): 201 mm<sup>2</sup>/s (201 cSt) [DIN EN ISO 3219]

### Particle characteristics

**Median particle size** :  Not applicable.

## 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : No specific data.

**Incompatible materials** : No specific data.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

### Acute toxicity

Not available.

### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
<input checked="" type="checkbox"/> (M)IT/MIT(3:1)	100	50	N/A	N/A	0.05

### Irritation/Corrosion

Not available.

### Respiratory sensitization/Skin sensitization

Not available.

### Germ Cell Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

## 12. Ecological information

### Ecotoxicity

Product/ingredient name	Result	Species	Exposure
Titanium dioxide	Acute EC50 19.3 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 27.8 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 35.306 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 13.4 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 11 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 3.6 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 15.9 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 13 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours	
Acute LC50 >1000 mg/l Fresh water	Fish - Pimephales promelas	96 hours	

### Persistence/degradability

Not available.

### Bioaccumulative potential

Not available.

### Mobility in soil

: Not available.

### Hazardous to the ozone layer

: Not applicable.

### Other adverse effects

: No known significant effects or critical hazards.

## 13. Disposal considerations

### Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14. Transport information

	UN	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

### Additional information

IMDG : **IMDG Code Segregation group** Not applicable

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not available.


## 15. Regulatory information

### Fire Service Law


Category	Substance name/Type	Danger category	Signal word	Designated quantity
Specified flammables	Combustible liquid	Not applicable	Not applicable	2 m <sup>3</sup>

### ISHL


#### Substance(s) requiring labelling

Ingredient name	%	Status	Reference number
	≤10	Listed	191

#### Chemicals requiring notification

Ingredient name	%	Status	Reference number
	≤10	Listed	191

### Chemical Substances Control Law (CSCL)

Ingredient name	%	Status	Reference number
 dodecamethylcyclohexasiloxane	≤0.10	Monitoring Priority assessment	41
2-butoxyethanol	≤0.10		109
octamethylcyclotetrasiloxane	≤0.10	Monitoring	40

### Poisonous and Deleterious Substances

None of the components are listed.



## 15. Regulatory information

### Pollutant Release and Transfer Registers (PRTR)

None of the components are listed.

JSOH Carcinogen :  Group 1

## 16. Other information

### History

Date of printing : 9 December 2022

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Unique ID :

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient


MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

UN = United Nations

### Procedure used to derive the classification

Classification	Justification
 SKIN SENSITIZATION - Category 1	Calculation method
HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 3	Calculation method
HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 3	Calculation method

 Indicates information that has changed from previously issued version.

### Notice to reader

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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