

SAFETY DATA SHEET

FR2-55 MATT 4-8GU BASE FIRE RED AIC 28.1

In accordance with the Standard for Classification and Labeling of Chemical Substance and Safety Data Sheet,
Article 10 Paragraph 1

Section 1. Chemical product and company identification

A. Product name : FR2-55 MATT 4-8GU BASE FIRE RED AIC 28.1
SDS code : 55782801B

B. Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Paint. Professional use Industrial use

Uses advised against

All other uses

Product use : Waterborne coating for interior use.

C. 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

Section 2. Hazards identification

A. Hazard classification : Not classified.
 This product was evaluated in accordance with the Industrial Safety and Health Act and the Chemical Control Act, and determined to be 'not classified'.

B. GHS label elements, including precautionary statements

Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.

Section 2. Hazards identification

C. Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	Common name	Identifiers	%
silicon dioxide	silica, amorphous, fumed	CAS: 7631-86-9	≤5
titanium dioxide	Titanium dioxide	CAS: 13463-67-7	≤5
Talc , not containing asbestiform fibres	talc (non-asbestos form)	CAS: 14807-96-6	≤5
C(M)IT/MIT(3:1)	C(M)IT/MIT(3:1)	CAS: 55965-84-9	≤5
ammonia, anhydrous	ammonia, anhydrous	CAS: 7664-41-7	≤5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

- A. Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- B. Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- C. Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- D. Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- E. Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

- A. Extinguishing media**
- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- B. Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides
- C. 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.
- Special precautions 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.

Section 6. Accidental release measures

- A. Personal precautions, protective equipment and emergency procedures** : 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. Put on appropriate personal protective equipment.
- B. 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).
- C. 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. 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. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

- A. Precautions for safe handling**
- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- 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.

Section 7. Handling and storage

- B. Conditions for safe storage, including any incompatibilities** : 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.

Section 8. Exposure controls/personal protection

A. Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
(M)IT/MIT(3:1) ammonia, anhydrous	Ministry of Employment and Labor (Republic of Korea, 1/2020). TWA: 0.1 mg/m ³ 8 hours. Form: inhalable fraction Ministry of Employment and Labor (Republic of Korea, 1/2020). [Ammonia] STEL: 35 ppm 15 minutes. TWA: 25 ppm 8 hours.

- B. Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- C. Personal protective equipment**
- 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.
- 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.
- 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.
- Body 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.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9. Physical and chemical properties

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

A. Appearance

Physical state : Liquid.
Color : Red.

B. Odor : Characteristic.

C. Odor threshold : Not available.

D. pH : [DIN EN 1262]

E. Melting/freezing point : Not available.

F. Boiling point, initial boiling point, and boiling range : Not available.

G. Flash point : closed cup: 105°C (221°F) [Pensky-Martens]

H. Evaporation rate : Not available.

I. Flammability (solid, gas) : Not available.

J. Lower and upper explosive (flammable) limits : Not available.

K. Vapor pressure :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<input checked="" type="checkbox"/> ammonia	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			
IRGAZIN DPP ORANGE 16A	0	0	EU A.4			
propylidynetrimethanol	0	0				
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	0	0	EU A.4			

L. Solubility(ies) :

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

Solubility in water : Not available.

M. Vapor density :

N. Density : 2.21 g/cm³ [DIN EN ISO 2811-1]

O. Partition coefficient: n-octanol/water : Not applicable.

P. Auto-ignition temperature :

Section 9. Physical and chemical properties

Ingredient name	°C	°F	Method
<input checked="" type="checkbox"/> [[4-(aminocarbonyl)phenyl]azo]-N-(2-ethoxyphenyl)-3-hydroxynaphthalene-2-carboxamide	>140	>284	
2-butoxyethanol	230	446	DIN 51794
Paraffin waxes and Hydrocarbon waxes	244.85	472.7	
Ethene, homopolymer	330 to 410	626 to 770	
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	356	672.8	EU A.16
dodecamethylcyclhexasiloxane	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	651	1203.8	

Q. Decomposition temperature : Not available.

R. Viscosity : Kinematic (room temperature): 992 mm²/s (992 cSt) [DIN EN ISO 3219]
Kinematic (40°C (104°F)): 201 mm²/s (201 cSt) [DIN EN ISO 3219]

S. Molecular weight : Not applicable.

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

A. Chemical stability : The product is stable.

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

B. Conditions to avoid : No specific data.

C. Incompatible materials : No specific data.

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

Section 11. Toxicological information

A. Information on the likely routes of exposure : Not available.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Eye contact : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : No specific data.

Ingestion : No specific data.

Skin contact : No specific data.

Eye contact : No specific data.

Section 11. Toxicological information

B. Health hazards

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ammonia, anhydrous	LC50 Inhalation Gas.	Mouse	4230 ppm	1 hours
	LC50 Inhalation Gas.	Mouse	4500 ppm	1 hours
	LC50 Inhalation Gas.	Mouse	21430 ppm	30 minutes
	LC50 Inhalation Gas.	Rat	17401 ppm	15 minutes
	LC50 Inhalation Gas.	Rat	9500 ppm	1 hours
	LC50 Inhalation Gas.	Rat	2000 ppm	4 hours
	LC50 Inhalation Vapor	Mouse	4600 mg/m ³	2 hours
	LC50 Inhalation Vapor	Rabbit	7 g/m ³	1 hours
	LC50 Inhalation Vapor	Rat	7040 mg/m ³	30 minutes
	LC50 Inhalation Vapor	Rat	4673 mg/kg	4 hours
	LC50 Inhalation Vapor	Rat	4673 mg/kg	4 hours
	LC50 Inhalation Vapor	Rat	18600 mg/m ³	5 minutes

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Silicon dioxide	Eyes - Mild irritant	Rabbit	-	24 hours 25 mg	-

Sensitization

Not available.

CMR - ISHA Article 42 Occupational Exposure Limits

Product/ingredient name	Identifiers	Classification
Titanium dioxide	CAS: 13463-67-7	CARCINOGENICITY - Category 2

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH
Silicon dioxide	-	3	-	-
titanium dioxide	-	2B	-	A4
Talc , not containing asbestiform fibres	-	3	-	A4

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Potential chronic health effects

Chronic toxicity

Section 11. Toxicological information

Not available.

General	: No known significant effects or critical hazards.
Carcinogenicity	: <input checked="" type="checkbox"/> No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

Section 12. Ecological information

A. 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
	Acute EC50 29.2 mg/l Marine water	Algae - Ulva fasciata - Zoea	96 hours
	Acute LC50 2500 µg/l Fresh water	Crustaceans - Asellus aquaticus	48 hours
	Acute LC50 2710 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	Acute LC50 5210 µg/l Marine water	Crustaceans - Fenneropenaeus penicillatus - Zoea	48 hours
	Acute LC50 2080 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 4980 µg/l Marine water	Crustaceans - Penaeus japonicus - Nauplii	48 hours
	Acute LC50 0.53 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25400 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 4180 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 4130 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 660 µg/l Fresh water	Fish - Cyprinus carpio	96 hours
Acute LC50 440 µg/l Fresh water	Fish - Cyprinus carpio	96 hours	
Acute LC50 380 µg/l Fresh water	Fish - Hypophthalmichthys molitrix - Fingerling	96 hours	
Acute LC50 300 µg/l Fresh water	Fish - Hypophthalmichthys nobilis	96 hours	
Acute LC50 450 µg/l Fresh water	Fish - Oncorhynchus tshawytscha - Underyearling	96 hours	
Chronic NOEC 0.204 mg/l Marine water	Fish - Dicentrarchus labrax	62 days	
Chronic NOEC 550 µg/l Fresh water	Fish - Rutilus rutilus - Embryo	31 days	
ammonia, anhydrous			

Section 12. Ecological information

B. Persistence and degradability

Not available.

C. Bioaccumulative potential

Not available.

D. Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

E. **Other adverse effects** : No known significant effects or critical hazards.

Section 13. Disposal considerations

A. **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.

B. **Disposal precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

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

Additional information

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

F. **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.

Section 15. Regulatory information

A. Regulation according to ISHA

ISHA article 117 (Harmful substances prohibited from manufacture) : None of the components are listed.

ISHA article 118 (Harmful substances requiring permission) : None of the components are listed.

Article 2 of Youth Protection Act on Substances Hazardous to Youth : Not applicable.

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:

(M)IT/MIT(3:1)
ammonia, anhydrous

ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors) : The following components are listed: ammonia

ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement) : The following components are listed: silica, titanium dioxide, talc / soapstone

ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up) : None of the components are listed.

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) : The following components are listed: titanium dioxide

B. Regulation according to Chemicals Control Act

Article 11 (TRI) : None of the components are listed.

Article 18 Prohibited (K-Reach Article 27) : None of the components are listed.

Article 19 Subject to authorization (K-Reach Article 25) : None of the components are listed.

Article 20 Toxic Chemicals (K-Reach Article 20) : Not applicable

Article 20 Restricted (K-Reach Article 27) : None of the components are listed.

Article 39 (Accident Precaution Chemicals) : None of the components are listed.

Existing Chemical Substances Subject to Registration : The following components are listed: Quartz, 5-Chloro-2-methyl-3(2H)-isothiazolone, mixt. With 2-methyl-3(2H)-isothiazolone, Ammonia

Section 15. Regulatory information

- C. Dangerous Materials** : **Class:** Class 4 - Flammable Liquid
Safety Management Act : **Item:** 5. Class 3 petroleum - Water-insoluble liquid
Threshold: 2000 L
Danger category: III
Signal word: Contact with sources of ignition prohibited
- D. Wastes regulation** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- E. Regulation according to other foreign laws**
International regulations
Chemical Weapon Convention List Schedules I, II & III Chemicals
 Not listed.
Montreal Protocol
 Not listed.
Stockholm Convention on Persistent Organic Pollutants
 Not listed.
Rotterdam Convention on Prior Informed Consent (PIC)
 Not listed.
UNECE Aarhus Protocol on POPs and Heavy Metals
 Not listed.

Section 16. Other information

- A. References** : - Registry of Toxic Effects of Chemical Substances
 - United States Environmental Protection Agency ECOTOX
- B. Date of issue/Date of revision** : 9 December 2022
- C. Version** : 2
Unique ID :
Date of printing : 9 December 2022
- D. Other**

☑ Indicates information that has changed from previously issued version.

- Key to abbreviations** : 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

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

Date of issue/Date of revision : 9-12-2022 **Version** : 2
Date of previous issue : 6-10-2022 11/12

Section 16. Other information

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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