



**EC TYPE EXAMINATION (MODULE B)
CERTIFICATE No. MED176823XP**

This is to certify that RINA Services S.p.A. (Notified Body No. 0474) did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Fire Protection requirements of Marine Equipment Directive (MED) 2014/90/EU, including the requirements and testing standards of Regulation (EU) 2023/1667.

MED Item N°

MED/3.58

Description

**Fixed low expansion foam fire extinguishing systems components for machinery spaces and tanker deck protection
Expansion foam for fixed fire extinguishing systems for chemical tankers**

Type

Fomtec Enviro SEA 3%

Applicant

DAFO FOMTEC AB

P.O Box 683
SE-135 26 Tyreso
SWEDEN

Testing standards

IMO MSC.1/Circ.1312; IMO MSC.1/Circ.1312/Corr.1

Reference standards

SOLAS 74 Reg.II-2/10. IMO Res.MSC.98(73)-(FSS Code) 6, IMO Res.MSC.98(73)-(FSS Code) 14, IMO MSC/Circ.1239, IMO MSC.1/Circ.1276.

*Issued in Gdańsk on
December 20, 2023*

*This Certificate is valid until
December 19, 2028*

This Certificate consists of this sheet plus an attachment



Baranska

Anna Maria Baranska

RINA Services S.p.A.





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Manufacturer

DAFO FOMTEC AB - DAFO FOMTEC AB (Production & R&D)

Place of Manufacturer

Garnisonsgatan 47A
SE-254 66 Helsingborg
SWEDEN

Product specification:

Fomtec Enviro Sea 3% is a firefighting foam concentrate with no intentionally added PFAS (fluorine compounds). It is a novel formulation consisting of surfactants, foam stabilizers, and boosters. Fomtec Enviro SEA 3% is intended for use on hydrocarbon fuel fires such as oil, diesel, and other water-immiscible fuels. Fomtec Enviro SEA 3% is specially designed for use in marine applications and for use with seawater.

Technical Characteristics

FOAM CONCENTRATE Fomtec Enviro Sea 3%		
Mixing Ratio	3	%
Specific Gravity at 20°C	1,02 ± 0,01	g/ml
Viscosity at 20°C	<50	mPas
PH at 20°C	6,5-9,5	-
Freezing point	0	°C
Recommended storage temperature	0- 55	°C
Suspended sediment (v/v)	<0,2	%

Field of Application

This approval does not address the foam generating equipment, only the foam concentrate.

Fomtec Enviro SEA 3% is intended for use on class B hydrocarbon fuel fires such as Oil, Diesel and other water-immiscible fuels and class A fires such as wood, paper, textiles etc.

Fomtec Enviro SEA 3% is especially suited whenever a fluorine-free alternative with high fire performance is required for marine applications and the use of seawater.

Fomtec Enviro SEA 3% should be used with low or medium expansion discharge devices or in systems designed for use with the product based on recommended minimum application rates, application duration, and discharge devices.

Fomtec Enviro SEA 3% is suitable for mobile firefighting by use of aspirating foam discharge devices such as foam branch pipes and monitors, where application rates and technique can be adjusted to the specifics of each incident

Technical Documentation

Technical Specification –TDS Fomtec Enviro SEA 3% filed by RINA with n° PLFP/2751.

Risk Assessment Fomtec Enviro SEA 3% filed by RINA with n° PLFP/2749.

EU Declaration of Conformity filed by RINA with n° PLFP/2750.

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Tests Carried Out

According to IMO MSC.1/Circ.1312 & MSC.1/Circ.1312/Corr.1- "Revised guidelines for the performance and testing criteria, and surveys of foam concentrates for fixed fire-extinguishing systems", Test report filed by RINA with n° PLFP/2748.

Note

The foam concentrate should be delivered with a declaration (i.e., Batch Certificate) of the main characteristics (sedimentation, pH value, expansion ratio, drainage time and volumetric mass). The declaration will be the basis for the annual condition test.

The storage container should be compatible with the foam concentrate throughout the service life of the foam.

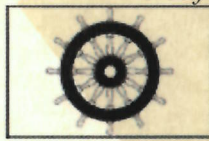




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The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production control phase module (D, E or F) of Annex II of the Directive is fully complied with a written inspection agreement with a Notified Body



XXXX/YYYY

"WHEELMARK FORMAT"

XXXX *Notified Body number undertaking surveillance module*
YYYY *The year in which the mark is affixed*

General conditions for the approval

- a) The initial conditions verified by RINA at the time of the approval are to be maintained
- b) Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessment
- c) This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with RINA
- d) RINA personnel are to be allowed to witness during the performances of activities, upon their request
- e) The activities are to be carried out in compliance with the RINA Rules and/or other applicable Rules
- f) Should the specified regulations or standards be amended during the validity of this certificate, the product is to be reapproved prior to it being placed on board vessels to which the amended regulations or standards apply.



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