

# Quality System Certificate (Module D)



This is to certify that:

TÜV NORD Systems GmbH & Co.KG, notified by the Federal Maritime and Hydrographic Agency of Germany (BSH), did undertake the relevant assessment procedures for the quality system of the manufacturer identified below which was found to be in compliance with the Fire Protection Equipment requirements of Marine Equipment Directive (MED) 2014/90/EU for the products described in the EC Type Examination Certificates (Module B) listed in the Annex to this Certificate, subject to any conditions in the details of appraisal attached hereto.

Recognized acc. to 2014/90/EU  
by the BSH  
BSH-Reference No.:  
0800S11/4822/005



**Certificate No.:** M23003

**Manufacturer:** Prevent Tec GmbH  
Eckenerstraße 24  
74081 Heilbronn  
Germany

**Related Directive:** 2014/90/EU – in conjunction with 2022/1157/EU

**Scope:** MED/3.58 Synthetic foam concentrate (S)  
Fire Extinguishing Systems Components for Machinery Spaces and Tanker Deck Protection  
MED/3.59 Synthetic foam concentrate (S)  
for Fixed Fire Extinguishing Systems for Chemical Tankers

*The attached annex is part of this certificate.*

**Date of Issue:** 2023-01-10

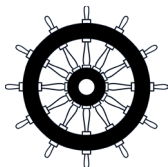
**Expiry Date:** **2024-11-22**



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**Tobias Nelke**  
Head of certification body SEECERT  
(Notified Body No.: 0045)

This certificate provides the basis for the manufacturer or (if applicable) his authorised representative established within the European Union in conjunction with the EC-Type Examination Certificate (module B) of the equipment listed in the scope to affix the "Mark of Conformity" (wheelmark). This certificate remains valid unless suspended, expired or withdrawn. In the case of built-in devices, the authorization remains in force beyond the date of validity until revocation. This certificate loses its validity if the manufacturer makes any changes or modifications to the approved quality system, which have not been notified to, and agreed with the Notified Body SEECERT.



0045/(YY)YY

The marking of approved marine equipment must take place under Article 9, Article 10 and if applicable Article 11 in conjunction with Annex I of the Marine Equipment Directive 2014/90/EU. In addition to the marking, the identification number of the notified body performing the conformity assessment procedure and the year in which the conformity mark was affixed shall be indicated.

0045 Number of the Notified Body responsible for quality surveillance module.  
(YY)YY The year (last two or four digits) in which the mark is affixed.

## DETAILS OF APPRAISAL

The following marine equipment is subject to the certified quality management system:

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<b>Product Name:</b>	<b>FireEx® C-Marine</b>		
<b>Product Description:</b>	<b>Synthetic foam concentrate (S) Fire Extinguishing Systems Components for Machinery Spaces and Tanker Deck Protection</b>		
<b>Regulation Item:</b>	<b>MED/3.58</b>		
<b>Module B data:</b>	Number: <b>M23001</b>	Notified Body: <b>0045</b>	Expiry Date: <b>2024-09-20</b>

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<b>Product Name:</b>	<b>FireEx® C-Marine</b>		
<b>Product Description:</b>	<b>Synthetic foam concentrate (S) for Fixed Fire Extinguishing Systems for Chemical Tankers</b>		
<b>Regulation Item:</b>	<b>MED/3.59</b>		
<b>Module B data:</b>	Number: <b>M23002</b>	Notified Body: <b>0045</b>	Expiry Date: <b>2024-08-23</b>

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**Places of production:**  
Germany

**Restrictions:**  
None

**Remarks:**  
None

# EC-Type Examination Certificate (Module B)



This is to certify that:

TÜV NORD Systems GmbH & Co.KG, notified by the Federal Maritime and Hydrographic Agency of Germany (BSH), did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the essential Fire Protection Equipment requirements of Marine Equipment Directive (MED) 2014/90/EU, subject to any conditions in the details of appraisal attached hereto.

Recognized acc. to 2014/90/EU by the BSH  
BSH-Reference No.:  
0800S11/4822/005



**Certificate No.:** M23001

**Manufacturer:** Prevent Tec GmbH  
Eckenerstraße 24  
74081 Heilbronn  
Germany

**Product Name:** FireEx® C-Marine

**Product Description:** Synthetic foam concentrate (S)

**Regulation Item:** MED/3.58 Foam concentrate

**Specified Standards:** SOLAS 74 as amended, Regulation II-2/10,  
IMO-Entschließung MSC.98(73)-(FSS-Code) 6,  
IMO-Entschließung MSC.98(73)-(FSS-Code) 14,  
IMO MSC.1/Circ.1312 and IMO MSC.1/Circ.1312/Corr.1,  
IMO MSC/Circ.1239,  
IMO MSC.1/Circ.1276.

**Related Directive:** 2014/90/EU – in conjunction with 2022/1157/EU

*The attached annex (details of appraisal) is part of this certificate.*

**USCG Approval Category No.:** ---


**Date of Issue:** 2023-01-10

**Expiry Date:** **2024-09-20**

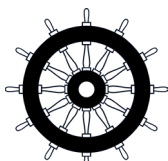


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**Tobias Nelke**  
Head of certification body SEECERT  
(Notified Body No.: 0045)

The mark of conformity (wheelmark ) 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 the Directive is fully complied with.

This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached annex (details of appraisal) are complied with. This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the notified body SEECERT. During the period of validity of this certificate the applicable regulations (international conventions, the relevant resolutions and circulars of the IMO) and testing standards of the Commission Implementing Regulation may change, therefore the product conformity may need to be re-assessed by the notified body SEECERT.



XXXX/(YY)YY

The marking of approved marine equipment must take place under Article 9, Article 10 and if applicable Article 11 in conjunction with Annex I of the Marine Equipment Directive 2014/90/EU. In addition to the marking, the identification number of the notified body performing the conformity assessment procedure and the year in which the conformity mark was affixed shall be indicated.

XXXX      Number of the Notified Body responsible for quality surveillance module.  
(YY)YY    The year (last two or four digits) in which the mark is affixed.

## DETAILS OF APPRAISAL

### Appraisal documentation:

Declaration of conformity No. KB258/18 dated 2018-11-26 issued by MPA Dresden GmbH.

Test report No. 20181210-1 dated 2018-11-26 issued by MPA Dresden GmbH.

(TNS Ref.no.: 8121060752)

### Tests carried out:

Tested according to:

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

### Technical principles:

“FireEx® C-Marine” is a synthetic foam concentrate (S), approved for use as a low expansion foam concentrate (Type B) against hydrocarbon fires (non-polar solvents) for fixed and mobile fire-fighting systems.

#### Description:

Mixing ratio with seawater (as tested):	6%
pH value:	7 ± 0,5
Expansion ratio:	5.70
Drainage time (25%):	36:26 (min:s)
Volumetric mass/density:	1,0234 g/ml
Viscosity (@ 0 °C):	146,34 mPa·s
Freezing point	-4,1 °C

Foam use, filling, maintenance, storage, transport etc. are to be in accordance with the Data Sheet.

The foam concentrate is seawater compatible.

This approval is valid only to the foam concentrate and on the compliance of each manufactured product with the prototype, which underwent the type approval tests. Such compliance shall be stated by the manufacturer.

Any foam generating equipment is not subject to this approval.

The storage facilities and piping arrangement onboard the vessel are to be designed and constructed with regard to seawater exposure (where applicable), and the minimum allowed temperature for the foam liquid.

The foam concentrate is 100% free of harmful heavy metals and without the addition of harmful fluorinated surfactants (such as AFFF, PFOS, POA or similar).

Periodical controls of foam concentrates stored on board (to be done in accordance with IMO MSC.1/Circ.1312):

- The first periodical control of the foam concentrate should be performed not more than 3 years after being supplied to the ship, and after that, every year.
- The product is to be delivered with a declaration of conformity and a declaration of the main characteristics (sedimentation, pH-value, expansion ratio, drainage time and volumetric mass), which will be the basis for the annual condition test.

### Installation:

Assembly procedure on board as per manufacturer’s instruction, which has to be supplied together with the product.

### Marking:

The product shall be permanently marked in accordance with Article 10 of the Council Directive 2014/90/EC of 23<sup>rd</sup> of July 2014 on marine equipment, e.g. certificate (approval) number, fire rating, etc.

### Remarks:

This concentrate may require special proportioning equipment.

### Limitations / Acceptance on use of the product:

See under “Technical principles”

### Comment to USCG Approval:

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# EC-Type Examination Certificate (Module B)



This is to certify that:

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Recognized acc. to 2014/90/EU  
by the BSH  
BSH-Reference No.:  
0800S11/4822/005



**Certificate No.:** M23002

**Manufacturer:** Prevent Tec GmbH  
Eckenerstraße 24  
74081 Heilbronn  
Germany

**Product Name:** FireEx® C-Marine

**Product Description:** Synthetic foam concentrate (S)

**Regulation Item:** MED/3.59 Foam concentrate

**Specified Standards:** SOLAS 74 as amended, Regulation II-2/1,  
IMO Res. MSC.4(48)-(IBC Code) 11  
IMO MSC.1/Circ.1312 and IMO MSC.1/Circ.1312/Corr.1,  
IMO MSC/Circ.553.

**Related Directive:** 2014/90/EU – in conjunction with 2022/1157/EU

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**USCG Approval Category No.:** ---

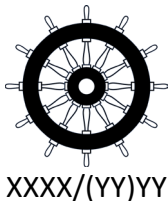
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**Tobias Nelke**  
Head of certification body SEECERT  
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The marking of approved marine equipment must take place under Article 9, Article 10 and if applicable Article 11 in conjunction with Annex I of the Marine Equipment Directive 2014/90/EU. In addition to the marking, the identification number of the notified body performing the conformity assessment procedure and the year in which the conformity mark was affixed shall be indicated.

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(TNS Ref.no.: 8121060752)

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The foam concentrate is seawater compatible.

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- The product is to be delivered with a declaration of conformity and a declaration of the main characteristics (sedimentation, pH-value, expansion ratio, drainage time and volumetric mass), which will be the basis for the annual condition test.

### Installation:

Assembly procedure on board as per manufacturer’s instruction, which has to be supplied together with the product.

### Marking:

The product shall be permanently marked in accordance with Article 10 of the Council Directive 2014/90/EC of 23<sup>rd</sup> of July 2014 on marine equipment, e.g. certificate (approval) number, fire rating, etc.

### Remarks:

This concentrate may require special proportioning equipment.

### Limitations / Acceptance on use of the product:

See under “Technical principles”

### Comment to USCG Approval:

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