



## CERTIFICATE OF FIRE APPROVAL

This is to certify that

The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

<b>Manufacturer</b>	Dafo Fomtec AB
<b>Address</b>	Garnisonsgatan 47A 254 66 Helsingborg Sweden
<b>Type</b>	FOAM CONCENTRATE
<b>Equipment Description</b>	"Fomtec® FP 3% AR" Protein-Based Alcohol Resistant Firefighting Foam
<b>Specified Standard</b>	IMO MSC.1/Circ. 1312 and MSC.1/Circ. 1312/Corr.1

The attached Design Appraisal Document forms part of this certificate.

**This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.**

Date of issue	23 February 2017	Expiry date	22 February 2022
Certificate No.	SAS F170032	Signed	
Sheet No	1 of 2	Name	K. Taylor Surveyor to Lloyd's Register EMEA A Member of the Lloyd's Register Group

**Note:**

**This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid Certificate.**

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



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## DESIGN APPRAISAL DOCUMENT

Date 23 February 2017	Quote this reference on all future communications SOUTSO/SFS/TA/KT/MF/WP27670656
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### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F170032

This Design Appraisal Document forms part of the Certificate.

#### APPROVAL DOCUMENTATION

Lloyd's Register Gothenburg Certificate No. GOT 1610490/2 dated 24 August 2016, Witnessing of Testing of Foam Concentrate According to IMO MSC.1/Circ. 1312.

#### CONDITIONS OF CERTIFICATION

1. Foam Concentrate Type "Fomtec® FP 3% AR" Protein-Based Alcohol Resistant Firefighting Foam: to be used in 3% concentration in suitable equipment for hydrocarbon fuel and polar solvent fuel applications
2. Foam concentrate should be stored above its freezing temperature of -15°C
3. The storage container should be compatible with the foam concentrates throughout the service life of the foam
4. To be tested after a period of 3 years and every year thereafter to verify that they remain fit for service in accordance with Annex 4 and 5 of the test standard, by independent laboratories or authorised service suppliers acceptable to the Administration. In addition, the foam shall be subjected to a stability test with acetone performed prior to delivery to the ship and annually thereafter in accordance with the Annex 4.7 of the test standard
5. It is to be confirmed that the test standard is acceptable for the project and application envisaged
6. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype

#### PLACES OF PRODUCTION

Dafo Fomtec AB  
Garnisonsgatan 47A  
254 66 Helsingborg  
Sweden



Keith Taylor  
Senior Specialist  
Aberdeen Technical Support Office  
Marine & Offshore Lloyd's Register

#### Supplementary Type Approval Terms and Conditions

*This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).*