DNV·GL

Certificate No:
MEDB00003MB

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Fixed low expansion foam fire extinguishing systems components for machinery spaces and tanker deck protection

with type designation(s)
ANSUL AFPAR331-FP15

Issued to
SABO FOAM S.r.l.
Cologno Al Serio BG, Italy

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
item No. MED/3.58. SOLAS 74 as amended Regulation II-2/10, FSS Code 6, 14 and IMO MSC.1/Circ.1239 & 1276

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-03-22**.

Issued at **Høvik** on **2018-03-23**

DNV GL local station:
Milan

Approval Engineer:
Marius Mørner

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body

NORWEGIAN ACCREDITATION PROD 019

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-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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Job Id: **344.1-007737-1**
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Product description
"ANSUL AFPAR331-FP15"
is a fluorprotein, alcohol-resistant foam concentrate (FP-AR).

Application/Limitation
Approved for use as a low expansion, multi-purpose foam concentrate (Type A) for fixed and mobile fire-fighting systems.

Description	ANSUL AFPAR331-FP15
Usage concentration:	3% (hydrocarbon fires and alcohol fires)
Temperature, storage and usage:	-13 °C to +60 °C
pH value:	6-8
Expansion ratio:	≥ 6.36
Drainage time (25%):	4:23 (min:s)
Volumetric mass/density:	1.12-1.16 g/cm^3
Viscosity (@ 0 °C)	21 cSt
Onboard tank/storage material	According to Technical Bulletin no. T-2016111
Foam use, filling, maintenance, storage, transport etc. are to be in accordance with the Data Sheet The foam concentrate is seawater compatible.	

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.

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

The foam concentrate does not contain PFOS.

The validity of the certificate is dependent on the compliance of each manufactured product with the prototype which underwent the type approval tests and such compliance shall be stated by the manufacturer.

Each product is to be supplied with its manual for application, use, storage, transport and maintenance.

Periodical controls of foam concentrates stored on board (to be done in accordance with IMO MSC.1/Circ. 1312):
- The foam liquid is to be delivered with a declaration 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 (each year after 3 years).
- The annually condition test shall include a small scale fire.
- Chemical stability test shall be performed prior to delivery to the ship and annually thereafter.

Type Examination documentation
Test report no 20171032/Ty 168 dated 2017-12-11 from MPA Dresden, Freiburg, Germany.

Declaration of conformity no KB 229/17 dated 2017-12-11 from MPA Dresden, Freiburg, Germany.

Test report no 20171032/Ty 176 dated 2017-12-12 from MPA Dresden, Freiburg, Germany (small-scale reference test according to IMO MSC.1/Circ.1312 3.14).

Tests carried out
Tested according to IMO MSC.1/Circ.1312 as amended.

Marking of product

The packing is to be marked with MED Mark of Conformity and according to IMO MSC.1/Circ. 1312, 3.13, including among other things name and address of manufacturer, type designation, storage/use temperature, production date, expiry date and SHE information.