DNV·GL

Certificate No:
MEDB00002CU

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 the Kingdom 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)
CHEMGUARD CFP3B 3% FLUOROPROTEIN

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 **2022-04-09**.

Issued at **Høvik** on **2017-04-10**

DNV GL local station:
Milan

Approval Engineer:
Piotr Orzechowski

Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

Job Id: **344.1-006711-2**
Certificate No: **MEDB00002CU**

Product description
"CHEMGUARD CFP3B 3% FLUOROPROTEIN"
is a fluoroprotein foam concentrate (FP).

Application/Limitation
For use as a low expansion foam forming liquid in approved fixed and mobile fire extinguishing systems.

The foam concentrate is approved for use against hydrocarbon fires (non-polar solvents).

Approved for use as Type B foam concentrate.

Description	APIROL FX 3C
Nominal mixing ratio with seawater:	3 % (hydrocarbon fire)
Minimum usage temperature:	- 10 °C (14 °F)
Maximum usage temperature:	+ 50 °C (122 °F)
Expansion ratio:	1: > 7 *) 1: 8.5 **)
*) Data from product data sheet **) Data from initial fire test, when tested with seawater and IMO MSC.1/Circ.1312 test apparatus.	
Foam use, filling, maintenance, storage, transport, etc. are to be in accordance with the documents TDS: SB-2016235_A4 from TYCO Fire Protection Products/SABO FOAM SRL.	

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 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).

Type Examination documentation
Test Report No. 20160216/TY 83 dated 22 June 2016 from MPA Dresden, Freiberg, Germany.

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

Marking of product
The product or 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.