



Lloyd's
Register

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.

Manufacturer Fabrik Chemischer Präparate von Dr. Richard Sthamer GmbH & Co. KG

Address Liebigstraße 5
22113 Hamburg
Germany

Type FOAM CONCENTRATE

Description Fire Extinguishing High Expansion Foam Concentrate –
Type: "STHAMEX-SV-HT 2% F-10 #9273" Synthetic Foam Concentrate (2%)

Specified Standard IMO MSC/Circular.670

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 4 July 2016 Expiry date 3 July 2021

Certificate No. SAS F160199

Signed

Sheet No. 1 of 2

Name

M. Farrier
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.

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Lloyd's Register EMEA

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DESIGN APPRAISAL DOCUMENT

Date 4 July 2016	Quote this reference on all future communications MTES/SFS/TA/TRA/MF/WP25832693
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F160199

This Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

SP Technical Research Institute of Sweden; Test Report F900101 rev1, dated 29 April 2015

CONDITIONS OF CERTIFICATION

1. Type: "STHAMEX-SV-HT 2% F-10 #9273" may be used as a High Expansion Foam at 2% minimum concentration, in suitable equipment, for hydrocarbon fires
2. The expansion ratio of the foam shall not exceed 1000 to 1
3. Type: "STHAMEX-SV-HT 2% F-10 #9273" foam concentrate should be stored above the foam concentrate freezing test temperature of -20°C
4. When used in a Fixed High Expansion Foam System, it shall be tested with that system in accordance with MSC.1/Circ.1384
5. Each product is to be supplied with its manual for application, use, transport, storage and maintenance
6. Periodical testing of foam concentrates should be carried out not more than 3 years after being supplied to ship and after that, every year, by independent laboratories or authorised service suppliers acceptable to the Administration
7. 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

PLACE OF PRODUCTION

Fabrik Chemischer Präparate von Dr. Richard Sthamer GmbH & Co. KG
Liebigstraße 5
22113 Hamburg
Germany



Martin Farrier
Lead Specialist
Statutory Fire & Safety
Marine Technology and Engineering Services
Lloyd's Register EMEA

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).