

# NIPPON KAIJI KYOKAI

Certificate

Certificate No. TA18551E(N)

# APPROVAL

Name of Product

: Foam Concentrate

Product name

: FLUOR-FOAMOUSSE MARINE 3% F-15 #5315

Product descriptions

: 3% mixing ratio type low expansion foam concentrate for deck foam system of oil tankers as type B foam

(regular foam) as defined in Chapter 17 of IMO IBC

Code.

**Expansion Ratio** 

: 4 to 9 times

**Physical Properties** 

: As per attached.

Chemical Components: As per attached.

Manufacturer

: Fabrik chemischer Präparate

von Dr. Richard Sthamer GmbH & Co. KG Liebigstrasse 5, 22113 Hamburg, Germany

Testing standard

: IMO MSC.1/Circ.1312

THIS IS TO CERTIFY that the above-mentioned foam concentrate has been approved by Nippon Kaiji Kyokai with type approval No. N-1293, and that the products of the above type will be accepted for use onboard ships classed with the Society except Japanese flagged ships for compliance with the relevant requirements of the Society's Rules for the Survey and Construction of Steel Ships and those of the International Convention for the Safety of Life at Sea, 1974, as amended, subject to the approval of the flag Administration and conditional upon that product verification be carried out by the Society.

This certificate is valid until 14 June 2023.

Issued at Tokyo on 15 June 2018.

NIPPON KAIJI KYOKAI

H. Kobayashi General Manager

Material and Equipment Department

Initial approval date: 15 June 2018

# Attachment to the certificate No. TA18551E(N)



#### 1. Test Report

Test laboratory : MPA Dresden GmbH Report number : 20180112/Sth 256 Issued date : 20 March 2018

## 2. Physical Properties

Density (20°C)  $1.180 \pm 0.02 \text{ g/ml}$ 

Pour point Min. -15 ℃

pH value (20℃)  $6.5 \sim 8.0$ Sediment content (20°C) ≤ 0.25

Viscosity ≤ 30 mm<sup>2</sup>/sec (at 20°C)

> $\leq$  60 mm<sup>2</sup>/sec (at 0°C)  $\leq$  200 mm<sup>2</sup>/sec (at ·15°C)

## 3. Chemical Components

PROTEIN HYDROLYSATE ≤ 60% MAGNESIUM CHLORIDE ≤ 20% GLYCOL / GLYCOL ETHER : ≤ 5% IRON-(II)-SULFATE-7-HYDRATE :  $\leq 5\%$ AMMONIUMCHLORIDE ≤ 5% FLUOROSURFACTANT ≤ 1%

Water The Rest

~End of Certificate~