



中国船级社
CHINA CLASSIFICATION SOCIETY
工厂认可证书
CERTIFICATE OF WORKS APPROVAL

证书编号/Certificate No.
WH23PWA00009

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products described in the certificate.

制造厂/Manufacturer

洛阳市浪潮消防科技股份有限公司
Luoyang Langchao Fire Technology Co.,Ltd.

地址/Address

河南省洛阳市伊滨区龙顾路119号
No. 119, Longgu Road, Yibin District, Luoyang City, Henan Province

产品名称/Product

灭火剂
Extinguishing agent
低倍泡沫灭火剂,高倍泡沫灭火剂
Low-Expansion Foam Fire-Extinguishing Medium,High-Expansion Foam Fire-Extinguishing Medium

认可标准/Approval Standard

- MSC. 1/Circ. 1312 《经修订的固定灭火系统泡沫灭火剂的性能和试验标准及检验导则》
MSC.1/Circ.1312 Revised Guidelines for the Performance and Testing Criteria, and Surveys of Foam Concentrates for Fixed Fire-Extinguishing Systems
- 经 MSC. 327 (90) 修正的《国际消防安全系统规则》第6章
Chapter 6 of International Code for Fire Safety Systems, as amended by MSC.327(90).
- 经 MSC. 339 (91) 修正的《国际消防安全系统规则》第14章
Chapter 14 of International Code for Fire Safety Systems, as amended by MSC.339(91).
- MSC/Circ. 670 《固定式灭火系统高倍泡沫液性能、试验标准和检验指南》
MSC/Circ.670 Guidelines for the Performance and Testing Criteria and Surveys Of HighExpansion Foam Concentrates for Fixed Fire-Extinguishing Systems

用于/Intended for

船舶与海上设施/Ships and Offshore Installations

产品明细/Product Description

低倍泡沫灭火剂/Low-Expansion Foam Fire-Extinguishing Medium (M0001)

名称/Name	属性(值)/Value	单位/Unit
型号/Type	详见附件 See additional page(s)	
混合比/Mixing Ratio	详见附件 See additional page(s)	
凝固点/Freezing Point	详见附件 See additional page(s)	

证书有效期至/This Certificate is valid until 2027年05月16日/ May. 16,2027

发证机构 中国船级社武汉分社
Issued by CCS Wuhan Branch

签发日期 2023年06月01日
Date Jun. 01,2023

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Form No: W01.

联系方式/Contact Us, 见本社官方网站/See official web site of the Society (<http://www.ccs.org.cn>)

UTN:P023-86366236

发泡倍数/Foam Expansion	详见附页 See additional page(s)	
灭火时间/Extinguishing Time	详见附页 See additional page(s)	
抗烧时间/Burnback Time	详见附页 See additional page(s)	
pH 值/pH Value	详见附页 See additional page(s)	
粘度/Viscosity	详见附页 See additional page(s)	

高倍泡沫灭火剂/High-Expansion Foam Fire-Extinguishing Medium (M0001)

名称/Name	属性(值)/Value	单位/Unit
型号/Type	详见附页 See additional page(s)	
混合比/Mixing Ratio	详见附页 See additional page(s)	
发泡倍数/Foam Expansion	详见附页 See additional page(s)	
灭火时间/Extinguishing Time	详见附页 See additional page(s)	
pH 值/pH Value	详见附页 See additional page(s)	
粘度/Viscosity	详见附页 See additional page(s)	

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No. :

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No. : 20190520

试验报告日期/ Test Report Date : 2019-06-25

试验单位/ Laboratory: 洛阳市浪潮消防科技股份有限公司 Luoyang Langchao Fire Technology Co.,Ltd

试验单位地址/ Test Address: 洛阳市老城区九都路南光3号楼 No.3building of Nanguang. Jiudu road, Luoyang

试验报告编号/ Test Report No. : 20220112

试验报告日期/ Test Report Date : 2022-01-12

试验单位/ Laboratory: 洛阳市浪潮消防科技股份有限公司 Luoyang Langchao Fire Technology Co.,Ltd

试验单位地址/ Test Address: 河南省洛阳市伊滨区龙顾路119号 NO.119, Longgu Road, Yibin area, Luoyang City, Henan Province

试验报告编号/ Test Report No. : 202305

试验报告日期/ Test Report Date : 2023-05-17

试验单位/ Laboratory: 洛阳市浪潮消防科技股份有限公司 Luoyang Langchao Fire Technology Co.,Ltd

试验单位地址/ Test Address: 河南省洛阳市伊滨区龙顾路119号 No. 119, Longgu Road, Yibin District, Luoyang City, Henan Province

认可后的产品检验方式/Method of Product Inspection after Approval

按规范只认可不进行产品检验的产品/The product approved only in term of the rules:

认可后的产品检验由制造厂按本社批准的产品检验计划进行检验, 经检验合格后由制造厂签发合格证明, 并连同该产品的本社认可证书复印件一并交付用户, 制造厂对产品符合公约、法规、本社规范和本社认可的标准规定负责。

After approval, product inspection should be carried out by the Manufacturer in accordance with the product inspection scheme approved by the Society. Upon satisfactory inspection, and the Quality Certificate issued by the Manufacturer should be provided to the purchaser together with the copy of the approval certificate issued by the Society. The manufacturer should take responsibility for the product being in compliance with the convention, statutory regulation, the Society rules and the standard accepted by the Society.

认可保持条件/Maintenance Requirements of Approval

1. 工厂认可后, 如果图纸、技术文件、工艺规程有较大改变, 应征得本社同意。若改变涉及或影响到产品的设计、主要制造材料、关键工艺或产品的特性、特征, 则与特性有关的图纸和技术文件应经过本社审批, 并在检验机构认为必要时, 经本社检验人员到厂进行检查和见证有关试验, 其结果应能证实仍符合认可条件。

After works approval, if there are any major changes to the drawings, technical documents, specifications, prior consent should be obtained from the survey office of the Society. If the changes involve or affect product design, major construction materials, key workmanship or product characteristics and properties, drawings and technical documents related to properties are to be examined and approved by the Society and, where deemed necessary by the survey office, the surveyor to the Society will go to the manufacturer to inspect or witness relevant tests and the results of the tests should be able to demonstrate compliance with the approval conditions

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核

并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 工厂认可证书获得者应接受本社每年一次的定期审核，定期审核日为认可证书期满之日对应的每一周年日，检查工作应在定期审核日的前后三个月内进行。Those who have obtained the certificate of works approval shall receive periodical audit done by the Society on an annual basis. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit shall be done within a time span of three months before and after the annual surveillance date.

4. 在认可证书有效期内，本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核，以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 认可证书有效期内，如果出现可能导致本社暂停或撤消认可的情况，工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to suspend or withdraw the certificate, the manufacturer should take corrective actions in a prompt and effective manner.

备注/Remarks

本社已审核了产品厂无石棉声明，但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。

The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society. However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.

本证书由原工厂认可证书 (No. WH21PWA00037) 换新并替代原证书。

This Certificate is renewed from and supersedes the previous Works Approval Certificate No. WH21PWA00037

中国船级社武汉分社

CCS Wuhan Branch

注：本证书含有附页，共3页

Note: The certificate is attached with additional 3 page(s)

产品明细/Particulars

表 1. 低倍数泡沫灭火剂/Low Expansion Foam Concentrates

产品名称 Description	型号 Model	类型 Type	混合比 /Mixing ratio	凝固点 /Freezing point	发泡倍数 Foam expansion	PH 值 /PH Value	粘度 /Viscosity	灭火时间 /Extinguishi ng time	抗烧时间 /Burnback time
蛋白泡沫灭火剂 Protein Foam Concentrate	P 3%	B	3:97	-20 ℃	5.5(±20%)	6.0~9.5	≤200 mm ² / s	≤5 min	≥15 min
	P 6%	B	6:94	-10 ℃					
氟蛋白泡沫灭火剂 Fluoro-Protein Foam Concentrate	FP 3%	B	3:97	-20 ℃	5.5(±20%)				
	FP 6%	B	6:94	-10 ℃					
合成泡沫灭火剂 Synthetic Foam Concentrate	S 3%	B	3:97	-6 ℃	7.5(±20%)				
	S 6%	B	6:94	-4 ℃					
				-12 ℃					
	S100%	B	100:0	-10 ℃					
水成膜泡沫灭火剂 Aqueous Film Forming Foam Concentrate	AFFF 1%	B	1:99	-5 ℃	7.2(±20%)				
	AFFF 3%	B	3:97	-6 ℃					
				-10 ℃					
				-22 ℃					
				-30 ℃					
				-36 ℃					
	AFFF 6%	B	6:94	-4 ℃					
				-5 ℃					
				-12 ℃					
				-22 ℃					
				-30 ℃					
	-36 ℃								
	AFFF100%	B	100:0	-25℃					
抗溶性泡沫灭火剂 Alcohol Resistant Foam Concentrate	S/AR 3%	A&B	3:97	-15 ℃	6.5(±20%)				
	S/AR 6%	A&B	6:94	-5 ℃					
				-15 ℃					
				-22 ℃					
抗溶性氟蛋白泡沫灭火剂 Alcohol Resistant Fluoro-Protein Foam Concentrate	FP/AR3%	A&B	3:97	-14 ℃	7.0(±20%)				
	FP/AR6%	A&B	6:94	-5 ℃					
				-10 ℃					
				-15 ℃					

产品名称 Description	证书编号/Certificate No. 型号 Model	类型 Type	混合比例 /Mixing ratio	凝固点 /Freezing point	附页/Additional Page 发泡倍数 Foam expansion	PH 值 /PH Value	粘度 /Viscosity	灭火时间 /Extinguishi ng time	抗烧时间 /Burnback time
抗溶性水成膜泡沫灭火剂 Alcohol Resistant Aqueous Film Forming Foam Concentrate	AFFF/AR 3%	A&B	3:97	-6 °C	7.0(±20%)	6.0~9.5	≤200 mm ² / s	≤5 min	≥15 min
				-14 °C					
				-22 °C					
				-30 °C					
				-40 °C					
	AFFF/AR 6%	A&B	6:94	-4 °C					
				-5 °C					
				-15 °C					
				-22 °C					
				-30 °C					
				-40 °C					
多功能泡沫灭火剂 Multi-function foam extinguishing agent	DZG/AR6%	A&B	6:94	-22 °C					
微胶囊灭火剂 Encapsulator extinguishing agent	F500	A&B	3:97	-10 °C					

注：表 1 低倍数泡沫灭火剂试验标准为 MSC.1/Circ.1312。类型中 A 型泡沫液，是一种抗溶或多功能的泡沫液；B 型泡沫液都是普通泡沫液，不抗溶的泡沫液。

Note: Table 1 Low Expansion Foam Concentrate testing stand is MSC.1/Circ.1312, Type A foam concentrates are alcohol-resistant or multi-purpose foam concentrates; Type B foam concentrates are all regular type foam concentrates that are not alcohol-resistant.。

表 2. 高倍数泡沫灭火剂/High foam concentrate

产品名称 Description	型号 Model	类型 Type	混合比 Mixing Ratio	发泡倍数 Foam Expansion	PH 值 PH Value	粘度 Viscosity	灭火时间 Extinguishing Time
高倍数泡沫灭火剂 High foam concentrate	G 2%	B	2:98	≥ 201	6.0-9.5	$\leq 200 \text{ mm}^2 / \text{s}$	$\leq 120\text{s}$
	G 3%	B	3:97				
	G 6%	B	6:94				

注：表 2 高倍数泡沫灭火剂试验标准为 MSC/Circ.670。类型中 A 型泡沫液，是一种抗溶或多功能的泡沫液；B 型泡沫液都是普通泡沫液，不抗溶的泡沫液。

Note: Table 1 High foam concentrate testing standard is MSC/Circ.670, Type A foam concentrates are alcohol-resistant or multi-purpose foam concentrates; Type B foam concentrates are all regular type foam concentrates that are not alcohol-resistant,.