

Test Report

Number: SZHH01913073

Applicant: LUOYANG LANGCHAO FIRE TECHNOLOGY CO., LTD
NO.119, LONGGU ROAD, YIBIN HIGH-TECH
INDUSTRIAL PARK, LUOYANG, HENAN, CHINA

Date: Apr 15, 2024

Attn: MAY LEE

Sample Description:

One (1) submitted sample said to be:

Item Name : **Fire Extinguishing Agent.**
Item No. : **LCF500.**
Manufacturer : Luoyang Langchao Fire Technology Co., Ltd.
Buyer :
Country of Origin : China.
Country of Destination :
Date Sample Received : Apr 11, 2024.
Testing Period : Apr 11, 2024 – Apr 14, 2024.



Tests conducted:

As requested by the applicant, refer to attached page(s) for details.



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Conclusion:

<u>Tested Samples</u>	<u>Standard</u>	<u>Result</u>
Tested components of submitted samples	Perfluorooctanesulfonic Acid (PFOS), Its Salts and Perfluorooctanesulfonyl Fluoride (PFOSF) content requirement in the UN Stockholm Convention on Persistent Organic Pollutants (POPs)	Pass
	Perfluorooctanesulfonic Acid and Its Derivatives (PFOS) content requirement in the EU Regulation (EU) 2019/1021 on persistent organic pollutants (POPs)	Pass
	Perfluorooctanoic Acid (PFOA), Its Salts and PFOA-related Compounds content requirement in the EU Regulation (EU) 2019/1021 on persistent organic pollutants (POPs) and Amendment (EU) 2020/784	Pass
	Perfluorooctanoic Acid (PFOA), Its Salts and PFOA-related Compounds content requirement in the UN Stockholm Convention on Persistent Organic Pollutants (POPs)	Pass

Authorized by:
For Intertek Testing Services Shenzhen Ltd
Xiamen Branch



Rachel L. Guo
General Manager



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Tests Conducted

1 Perfluorooctanesulfonic Acid (PFOS), Its Salts and Perfluorooctanesulfonyl Fluoride (PFOSF) (UN Stockholm Convention)

With reference to CEN/TS 15968:2010, solvent extraction was used and followed by Liquid Chromatography Mass Spectrometric (LC-MS) analysis.

Test Item	Result(mg/kg)	Detection Limit (mg/kg)	Limit (mg/kg)
	Tested Component		
	(1)		
Perfluorooctanesulfonic acid (PFOS), its salts and Perfluorooctanesulfonyl fluoride (PFOSF)	ND	0.01	ND

The limit was quoted according to the UN Stockholm Convention on Persistent Organic Pollutants (POPs) on Perfluorooctanesulfonic Acid (PFOS), Its Salts and Perfluorooctanesulfonyl Fluoride (PFOSF) content.

ND = Not detected (less than detection limit)

Tested component: See component list in the last section of this report

2 Perfluorooctanesulfonic Acid and Its Derivatives (PFOS) Content (EU POPs)

With reference to CEN/TS 15968:2010, solvent extraction was used and followed by Liquid Chromatography Mass Spectrometric (LC-MS) analysis.

For semi-finished products or articles, or parts thereof:

Test Item	Result (%)	Detection Limit (%)	Limit (%)
	Tested Component		
	(1)		
Perfluorooctanesulfonic acid and its derivatives (PFOS)#	ND	0.000001	0.1

The limit was quoted according to the EU Regulation (EU) 2019/1021 on persistent organic pollutants (POPs) on Perfluorooctane Sulfonic Acid and Its Derivatives (PFOS) content.

ND = Not detected (less than detection limit)



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= The reported value was calculated by summation of the values of substances listed below:

No.	Substances	CAS No.
1	Perfluorooctanesulfonic acid	1763-23-1
2	Perfluorooctanesulfonic acid, potassium salt (PFOS-K)	2795-39-3
3	Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)	29457-72-5
4	Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH ₄)	29081-56-9
5	Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(OH) ₂)	70225-14-8
6	Perfluorooctanesulfonic acid, tetraethylammonium salt (PFOS-N(C ₂ H ₅) ₄)	56773-42-3
7	Didecyldimethylammonium perfluorooctane sulfonate	251099-16-8
8	Perfluorooctanesulfonyl fluoride	307-35-7
9	Perfluorooctanesulfonamide	754-91-6
10	N-Methyl-Perfluorooctanesulfonamide	31506-32-8
11	Ethyl-Perfluorooctanesulfonamide	4151-50-2
12	N-Methyl-Perfluorooctanesulfonamidoethanol	24448-09-7
13	N-Ethyl-Perfluorooctanesulfonamidoethanol	1691-99-2

Other Perfluorooctanesulfonic Acid-related compounds may also be present in the sample.

Tested component: See component list in the last section of this report

3 Perfluorooctanoic Acid (PFOA), Its Salts and PFOA-related Compounds Content (EU POPs)

With reference to CEN/TS 15968:2010, by solvent extraction and followed by Liquid Chromatographic / Tandem Mass Spectrometer (LC/MS/MS) analysis and Gas Chromatography-Mass Spectrometry (GC-MS) analysis.

Test Item	CAS No.	Result(mg/kg)	Detection Limit (mg/kg)	Limit (mg/kg)
		Tested Component		
		(1)		
Perfluorooctanoic acid (PFOA) and salts	--	ND	0.01	0.025
PFOA-related compounds#	--	ND	0.1	1

The limit was quoted according to the EU Regulation (EU) 2019/1021 on persistent organic pollutants (POPs) and Amendment (EU) 2020/784 on Perfluorooctanoic Acid (PFOA), Its Salts and PFOA-related Compounds content.

ND = Not detected (less than detection limit)

= The reported value was calculated by summation of the values of substances listed below:

No.	Substances	CAS No.
1	1H,1H,2H,2H-Perfluorodecylacrylate (8:2 FTA)	27905-45-9
2	1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH)	678-39-7
3	Methyl perfluorooctanoate (MePFOA)	376-27-2
4	Ethyl perfluorooctanoate (EtPFOA)	3108-24-5
5	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2 FTS)	39108-34-4
6	1H,1H,2H,2H-Perfluorodecylmethacrylate (8:2 FTMA)	1996-88-9
7	2H,2H-Perfluorodecanoic acid (H ₂ PFDA)	27854-31-5

Other PFOA-related compounds may also be present in the sample.

Tested component: See component list in the last section of this report



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4 Perfluorooctanoic Acid (PFOA), Its Salts and PFOA-related Compounds Content (UN Stockholm Convention)

With reference to CEN/TS 15968:2010, by solvent extraction and followed by Liquid Chromatographic / Tandem Mass Spectrometer (LC/MS/MS) analysis and Gas Chromatography-Mass Spectrometry (GC-MS) analysis.

Test Item	CAS No.	Result(mg/kg)	Detection Limit (mg/kg)	Limit (mg/kg)
		Tested Component (1)		
Perfluorooctanoic acid (PFOA) and salts	--	ND	0.01	ND
PFOA-related compounds#	--	ND	0.1	ND

The limit was quoted according to the UN Stockholm Convention on Persistent Organic Pollutants (POPs) on Perfluorooctanoic Acid (PFOA), Its Salts and PFOA-related Compounds content.

ND = Not detected (less than detection limit)

= The reported value was calculated by summation of the values of substances listed below:

No.	Substances	CAS No.
1	1H,1H,2H,2H-Perfluorodecylacrylate (8:2 FTA)	27905-45-9
2	1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH)	678-39-7
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4	Ethyl perfluorooctanoate (EtPFOA)	3108-24-5
5	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2 FTS)	39108-34-4
6	1H,1H,2H,2H-Perfluorodecylmethacrylate (8:2 FTMA)	1996-88-9
7	2H,2H-Perfluorodecanoic acid (H2PFDA)	27854-31-5

Other PFOA-related compounds may also be present in the sample.

Tested component:(1) Brown liquid (fire extinguishing agent)

End of report

The statements of conformity reported have considered the decision rule agreed, namely that Intertek have taken account of measurement uncertainty as calculated by Intertek, and applied according to ILAC-G8/09:2019-(Non-binary acceptance based on guard band $w = U$) except designation from the customer, regulation or test specification. This decision rule only applies to the numeric test results. Full details of our agreed decision rules and the associated risk can be viewed: <https://www.intertek.com.cn/diypage/upload/SZ-AP15-HLS-QA.pdf>.

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