ALS Technichem (M) SDN BHD (117964-P)
Head Office: Wisma ALS, 19 & 21, Jalan Astaka U8/84, Bukit Jelutong, 40150 Shah Alam
T (603) 7845 8257 F (603) 7845 8258 E marketing.my@alsglobal.com

right solutions.
right partner.

SAMM 147

CERTIFICATE OF ANALYSIS

BATCH NUMBER	:	KL2603048_Amend1
CLIENT	:	ALS CZECH REPUBLIC
DATE RECEIVED	:	21/02/2026
DATE COMPLETED	:	13/03/2026
SAMPLE TYPE	:	WATER
PROJECT	:	MICROPLASTIC
ANALYSIS REQUESTED	:	Microplastics in Water by Micro-FTIR
SAMPLE DESCRIPTION	:	One sample received with following reference:

No.	Sample Marking	Client ID	Laboratory ID
1.	PITNA VODA-VYSTUP	PR2613991/001	KL2603048-001

Note: Results apply to sample(s) as submitted.

Signatories,

This laboratory is accredited under STANDARDS MALAYSIA. The tests reported herein have been performed in accordance with laboratory's Terms of Accreditation. This document has been electronically signed by authorized signatories indicated below. Electronic signing has been carried out in compliance with procedure specified in 21 CFR Part 11.

Raja Zubaidah Raja Sabaradin
PhD (Analytical Chemistry)
IKM No.: M/6373/10182/23
R&D Chemist

right solutions.
right partner.

METHOD INFORMATION
Analysis of Microplastics in Water by Micro-FTIR. The sample is treated in pre-treatment steps (as in Table 1) to remove organic matters and to isolate the microplastics particles. Micro-FTIR analysis identify 13 plastics polymers based on the quality matching of above 80%.

Table 1. Sample Pre-treatment

Laboratory ID	Sample Matrix	Conditioned of sample received	Amount of sample used for analysis	Sample pre-treatment
KL2603048-001	Filter paper	Clean filter paper	Whole sample sent	Sample was suspended in ultrapure water before filtered and finally rinsed with ultrapure water. The filter membrane was air dried prior to analysis.

right solutions.
right partner.

RESULT
Analysis results (number of microplastics' particles)

Polymer types	KL2603048-001
	PR2613991/001
Acrylonitrile Butadiene Styrene (ABS)	n.d
Polyamide (PA)	1
Polybutadiene/Butadiene Rubber (BR)	n.d
Polycarbonate (PC)	n.d
Polyethylene (PE)	n.d
Polyethylene Terephthalate (PET)	n.d
Polymethyl Methacrylate (PMMA)	n.d
Polypropylene (PP)	n.d
Polystyrene (PS)	n.d
Polytetrafluoroethylene (PTFE)	1
Polyurethane (PU)	n.d
Polyvinyl Chloride (PVC)	n.d
Rayon	8
Total Microplastics	**10**

Note:

1. n.d: not detected based on quality matching of below 80%.
2. Limit size for detection: 20 µm.
3. Some microplastic particles may agglomerate due to their physical properties and samples matrix effects. This may influence the number of particles where larger agglomerates have been analyzed.
4. Data has not been corrected for method blank value.

right solutions.
right partner.

Microplastics Analysis QA/QC Data

Polymer types	Method Blank
Acrylonitrile Butadiene Styrene (ABS)	n.d
Polyamide (PA)	n.d
Polybutadiene/Butadiene Rubber (BR)	n.d
Polycarbonate (PC)	n.d
Polyethylene (PE)	n.d
Polyethylene Terephthalate (PET)	n.d
Polymethyl Methacrylate (PMMA)	n.d
Polypropylene (PP)	n.d
Polystyrene (PS)	n.d
Polytetrafluoroethylene (PTFE)	1
Polyurethane (PU)	n.d
Polyvinyl Chloride (PVC)	n.d
Rayon	n.d
Total Microplastics	**1**

Note:

1. n.d: not detected based on quality matching of below 80%.
2. Limit size for detection: 20 µm.
3. Some microplastic particles may agglomerate due to their physical properties and samples matrix effects. This may influence the number of particles where larger agglomerates have been analyzed.
4. This QA/QC data is to confirm the microplastics analysis is conducted in a clean working area to minimize cross contamination.