



ANALYSIS REPORT

Pace Analytical Life Sciences, LLC
 1311 Helmo Avenue North
 Oakdale, MN 55128
 Phone: (651)738-2728

Workorder 17237118
 2025 HCl IP Monograph Testing
 Lot: HOKX2320721125
 Specification: IP 2018 Effective: 01 Oct 2021
 Receipt Date: 01 Dec 2025
 Report Date: 10 Feb 2026

Prepared For:

Daniel Pocci
 Italmatch Chemicals (Elco Corporation), Cleveland,
 1000 Beltline Street
 Cleveland, OH 44109

Project Manager:

PLS ServiceTeam
 Pace Analytical Life Sciences, LLC
 Phone: (651)738-2728
 Pace.ServiceTeam@pacelabs.com

Analysis Performed	Analysis Date	Specification	Result
<i>112525124, PLS Sample ID 17237118001</i>			
ID A, IP Effective Date: Current	16 Dec 2025	Chlorine is evolved.	Complies: Chlorine was evolved.
ID B, IP Effective Date: Current	24 Dec 2025	It gives the reactions of chlorides (2.3.1).	Complies: It gave the reactions of chlorides (2.3.1).
Arsenic, IP (2.3.10) Effective Date: Current	08 Jan 2026	NMT 1 ppm	Complies: NMT 1 ppm
Heavy Metals, IP (2.3.13) Effective Date: Current	02 Feb 2026	NMT 5 ppm	Complies: NMT 5 ppm
Bromide and Iodide, IP Effective Date: Current	30 Dec 2025	The chloroform layer does not become brown or violet.	Complies: The chloroform layer did not become brown or violet.
Free Chloride, IP Effective Date: Current	26 Dec 2025	Any blue colour produced disappears on the addition of 0.2 mL of 0.01 M sodium thiosulphate.	Complies: Any blue colour produced disappeared on the addition of 0.2 mL of 0.01 M sodium thiosulphate.
Sulphite, IP Effective Date: Current	16 Dec 2025	The colour of the iodine is not completely discharged.	Complies: The colour of the iodine was not completely discharged.
Sulphates, IP (2.3.17) Effective Date: Current	19 Dec 2025	The resulting solution complies with the limit test for sulphates (20 ppm).	Complies: The resulting solution complied with the limit test for sulphates (20 ppm).
Residue on Evaporation, IP Effective Date: Current	19 Dec 2025	Not more than 0.01 per cent	Complies: 0.0 per cent
Assay, IP Effective Date: Current	30 Jan 2026	Not less than 35.0 per cent w/w and not more than 38.5 per cent w/w of HCl	Complies: 37.0 per cent w/w of HCl

Testing was performed in compliance with cGMPs

See Signature Manifest for Approval

Signature Manifest

Document Number: PLS-LIMS Report-84459
Title: 17237118 fr
Effective Date: 10 Feb 2026

Revision: A

All dates and times are in Central Time Zone.

17237118 fr

QA Approval

Name/Signature	Title	Date	Meaning/Reason
Alora Smith (440382)	QA Specialist III	10 Feb 2026, 12:40:53 PM	Approved

See Signature Manifest for Approval