

CPAchem – business overview




*The Experts in Custom-made
Certified Reference Materials*

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CPAchem history

 CPAchem is a Bulgarian-French company, which invented the custom-made standards, prepared to specific customer requirements

 Nowadays CPAchem has clients from 100 different countries on 6 continents

 Since 2002, the quality of CPAchem products has enabled the company to become and remain an OEM manufacturer for large international distributors.



CPA chem history line

2001	Founded, started producing and offering custom multi-component Inorganic solutions
2002	ISO 9001 certified
2003	Started production of Analytical standards and standards according to European Pharmacopoeia
2005	Started production of Organic standards
2012	Started production of standards according to US, British, Indian, Japanese and International Pharmacopoeia
2014	ISO 17025 (testing laboratory), ISO Guide 34 (CRM producer) accredited
2015	Started production of Organic compounds (CRM)
2016	Started production of Inorganic compounds (CRM)
2017	Started production of Karl Fischer standards (CRM) and Primary pH buffers (Harned Cell)
2018	Started production of Turbidity standards (CRM) and Chinese Pharmacopoeia products

CPA chem history line

2019

Moved to its new building with 5400 square meters (58 125 square feet) modern manufacturing and R&D laboratories, storage, office and recreational space.

Started offering organic compounds with certified weight

2020

Certification according to ISO 17025 and ISO 17034 of the Pharmacopoeia products

Started production of TIC&TOC, TDS, Alkalinity, COD, Total hardness, Pt-Co/Hazen and UV-VIS standards as CRM

2021

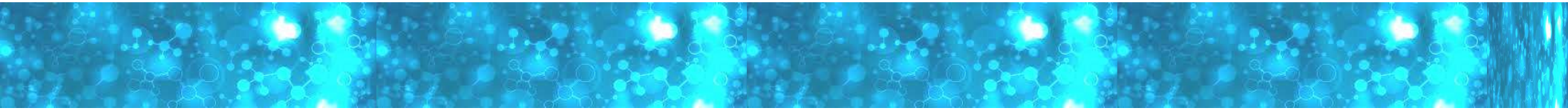
Launched – Osmolality standards, Full range of Karl Fischer standards

2022

Launched – Petrochemical standards



CPAchem's product range



CPAchem's product range

Custom-made and Stock
Inorganic solutions for AAS,
ICP, ICP/MS and Ion
Chromatography

Custom-made and Stock
Organic solutions for LC,
LC/MS, LC-MS/MS, GC and
GC/MS

Custom-made and Stock
Volumetric Solutions, Karl Fischer,
Turbidity, TOC, TIC, UV-VIS, COD,
Alkalinity, TDS, Pt-Co/ Hazen and
Total hardness Standards

High-Purity Inorganic
Compounds

High-Purity Organic
Compounds


Custom-made and Stock pH
and Conductivity Buffers,
Primary pH buffers
(Harned Cell)

Certified Reference Materials

Pharmacopoeia Products

Reagents according to European, US, British,
Indian, Japanese, International and Chinese
Pharmacopoeia

CPAchem is an expert in the production of Custom-made standards



The custom-made standards are prepared to exactly match clients' needs and give them opportunities to quickly achieve their goals



They are very cost-effective



Short lead time for preparation:

✓ 2 to 5 business days usually

✓ Emergency orders within 24 hours




51 % of CPAchem's turnover for 2022 is of custom-made standards



CPA chem accreditations




 ISO 17034:2016 (CRM producer)



 ISO/IEC 17025:2017 (Testing)

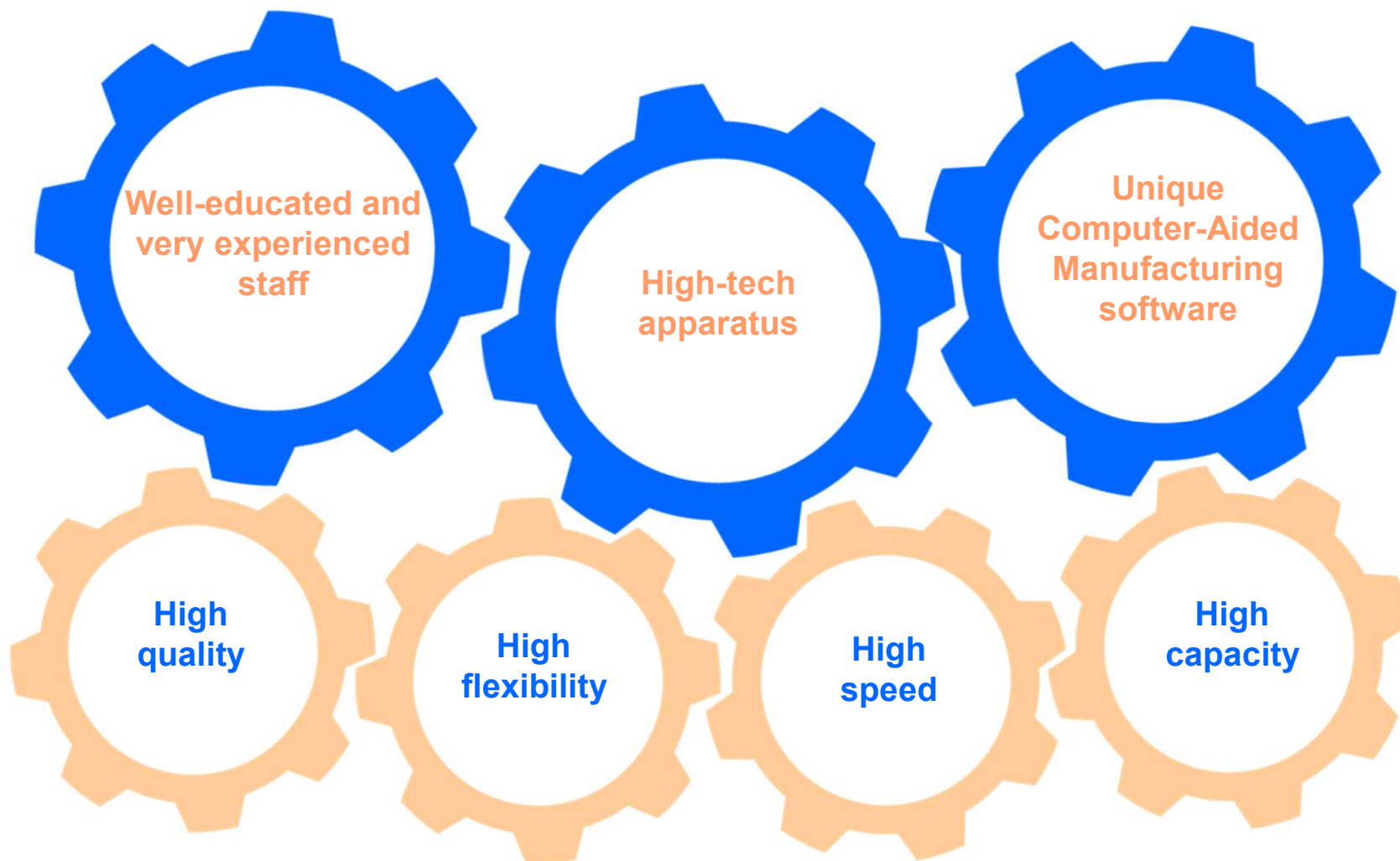


 ISO 9001:2015 certified


 The accreditation scope is one of the largest ones in the world


CPAchem main advantages?


*The Experts in Custom-made
Inorganic and Organic Standards*




What makes CPAchem different as a CRM producer?

 We answer every inquiry extremely fast – within the same day, not later than 24 hours

 We produce and ship every order (incl. for custom-made products) within 3-7 working days and process emergency orders within 24 hours when it is needed


 High capacity – ability to produce more than 200 different custom-made standards per day without volume and quantity limits

 We guarantee high-quality of products – the number of valid claims has never exceeded 0.3% of the total number of orders per year

 CPAchem has the widest accreditation scope in the industry



What makes us different as a CRM producer?

 The control of all processes is fully automated by our dedicated Computer Aided Manufacturing (CAM) software

 The software system performs and controls the whole working process:

- ✓ starting from the raw materials' incoming control through
- ✓ products preparation
- ✓ certified values and uncertainties budget calculation
- ✓ certificates generation
- ✓ packaging and expedition



Everest v- 3.2.0.35 on MAIN SERVER - [Everest]

05.03.2019 CPA Svella Ivanova

Ord 214348 Cat 11134 Quo 260021 637115

Order Info Catalog Info Quote Info

Line CAPURAN Multi 7 Recepty IC Type

Store under normal laboratory conditions, at temperatures between 15° to 25°C

Description: 7 components; Fluorides (F-) 100mg/l; Nitrites (NO2-) 100mg/l; Bromides (Br-) 100mg/l; Chlorides (Cl-) 1000mg/l; Nitrates (NO3-) 1000mg/l; Sulphates (SO42-) 1000mg/l; Phosphates (PO43-)

ID	Component	C.mg/l	Bulk LOT	B-mg/kg	dens.	B-mg/l	need	real	%	A	c.final	SBulkBarcode
F-	Fluorides	100	10 : F-[NaF]	9709.3	1.0218C	9921.0	1.3389	1.3405	0.1	✓	100.1	83110450
NO2-	Nitrites	100	1 : NO2-[Na]	999.30	0.9980C	997.30	13.0091	13.0108	0	✓	100.0	83105876
Br-	Bromides	100	25 : Br-[KBr]	24317	1.0252C	24930	0.5346	0.5351	0.1	✓	100.0	83109386
Cl-	Chlorides	1000	50 : Cl-[NaCl]	47234	1.0508C	49633	2.7523	2.7526	0	✓	1000	83101496
NO3-	Nitrates	1000	50 : NO3-[K]	48807	1.0394C	50730	2.6636	2.6636	0	✓	999	83103063
SO42-	Sulphates	1000	50 : SO42-]	47043	1.0618C	49950	2.7634	2.7649	0.1	✓	1000	83109201
PO43-	Phosphates	200	50 : PO43-]	47514	1.0484C	49814	0.5472	0.5476	0	✓	200	83109935

214348 Orders

Distr UNL Sent Archive P6135373 25.02.2019 25.02.2019

7 Components

ID	Component	Conc.	Msr.U.
F-	Fluorides	100	mg/l
NO2-	Nitrites	100	mg/l
Br-	Bromides	100	mg/l
Cl-	Chlorides	1000	mg/l
NO3-	Nitrates	1000	mg/l
SO42-	Sulphates	1000	mg/l
PO43-	Phosphates	200	mg/l

ID	Component	Conc.	Msr.U.
H2O	Water		

WOpen Certificate - C:\Everest3\Everest\Archive\ANALYSIS\637115.rtf

Times New Rom 10

Copies Print *.rtf Duplex Setup Printer Print to PDF-CAR Undo Barcode in PDF

Sol.	type	Vol	K	Empl.	Ready	Go	Dens(g/ml)
01		130	1	DH	✓	✓	1.00087
02		20	0.1	DH	✓	✓	0.99734
03		15	0.01	DH	✓	✓	0.99702
04		100	0.01	DH	✓	✓	0.99704

Mono bulks Multi bulks Salts NIST

OK only Available Only En.

E	Barcode	B/D	St	Pr.
▶	83078996	6	I	1 : (CH3)3NH+[Cl]
	84359384	p		0.03[1] : (CH3)3N
	84359568	p		0.03[1] : (CH3)3N
	83086045	6	I	1 : (CH3)3NH+[Cl]
	84429520	p		0.03[1] : (CH3)3N

Certificates=1 Analyses=0 Incoming DOCUMENTS

Cre KT

Over.. RLPAS_SB New Cert. ISO RLPAS_SHOW Raw Data

CERTIFIED REFERENCE MATERIAL

Solution of 7 components : 1000 mg/l each of Cl-, NO3-, SO42-; 200 mg/l PO43-; 100 mg/l each of F-, NO2-, Br-; Matrix: H2O

Lot N: 637115 Ref N: RM007035L1 Certification Date: 20.02.2019

Barcode: 97233091

Component	Certified Value and uncertainty (mg/l)	Metrological traceability
F-	99.82 ± 0.22 ⁽¹⁾	NIST SRM No 3183 Lot 140203
NO2-	100.00 ± 0.22 ⁽¹⁾	BAM CRM No 71804 Lot BCBRS525V
Br-	99.90 ± 0.22 ⁽¹⁾	NIST SRM No 3184 Lot 151130
Cl-	997.5 ± 2.2 ⁽¹⁾	NIST SRM No 3182 Lot 060925
NO3-	997.9 ± 2.3 ⁽¹⁾	NIST SRM No 3185 Lot 050517
SO4 ²⁻	1000.5 ± 2.1 ⁽²⁾	NIST SRM No 3181 Lot 080603
PO4 ³⁻	199.85 ± 0.48 ⁽¹⁾	NIST SRM No 3186 Lot 170606

Notes:
(1) WQP 5.15.1.24 The certified value was obtained by a weighted mean of the results of two independent calibration methods among: Classical Volumetric, Primary Gravimetric, Instrumental (ICP/OES, ICP/MS or IC)



Products Certification

Fully in tune with our company's philosophy we have been constantly trying to make our certificates more precise, detailed and easily accessible, meeting even the toughest demands of every user.

Get it online, be green

The users could access 24/7 each product's certificate and download it from our web-site simply using the QR code printed on product's label

Sample CoAs for all stock products are also available on the web-site

The shelf-life starts on the date the product is sent to the customer, i.e. customers always receive products with 100% shelf-life

All products lot numbers are unique and are related to given distributor's order









Inorganic Certified Reference Materials




Scan the QR code and go directly to our web-page: <https://www.cpachem.com/shop/inorganic>

Inorganic standards Certification

-  All certified values and their uncertainties are obtained analytically
-  Certificates of Analysis report the actual values and not simply the calculated ones
-  Traceability to SI (NIST, BAM)
-  The uncertainties refer to each of the components separately and not to the uncertainty of the whole mixture



Inorganic standards Certification

 Several methods are used to obtain the certified values of the produced certified reference materials:

- Instrumental - Ion Chromatography, ICP/OES or ICP/MS calibration;
- Classical volumetric analysis;
- Gravimetric dilution of a concentrate, which had been calibrated by instrumental and/or classical analysis;
- Weighted mean of the results of two independent calibration methods among: Instrumental (ICP/OES, ICP/MS or IC), Classical volumetric and Primary gravimetric*

* Primary gravimetric method is used only if the other methods are not usable. If it is possible the gravimetric preparation is always checked analytically for correct dilutions and eventual contamination







Organic Certified Reference Materials




Scan the QR code and go directly to our web-page: <https://www.cpachem.com/shop/organic>

Organic standards certification

 The uncertainties refer to each of the components separately and not to the uncertainty of the mixture

 The certified value(s) are obtained gravimetrically and confirmed experimentally by GC-MS or HPLC-DAD/ HPLC-MS/ HPLC-MS-MS. The latest option is to provide a chromatogram with the CoA or instrumentally obtained certified value(s)

 The CoAs provide full traceability of preparation. The dissolution of the raw materials (with their purity), passing through the preparation of the intermediate solutions and reaching to the preparation of the final solutions is described in section Additional Information

 An option for high-purity organic compounds is to certify their exact weight



A photograph of various laboratory glassware on a grey surface. From left to right: a round-bottom flask with a dark red liquid, a beaker with a brown liquid, a beaker with a yellow liquid, a graduated cylinder with a light blue liquid, a large Erlenmeyer flask with a yellow liquid, and a small Erlenmeyer flask with a light green liquid. In the background, a rack holds several test tubes, some containing blue liquid. The text 'Analytical Certified Reference Materials' is overlaid in white, italicized font.

Analytical Certified Reference Materials



Scan the QR code and go directly to our web-page: http://www.cpachem.com/shop/analytical_reagents


Analytical CRM certification

 All certified values and their uncertainties are obtained analytically

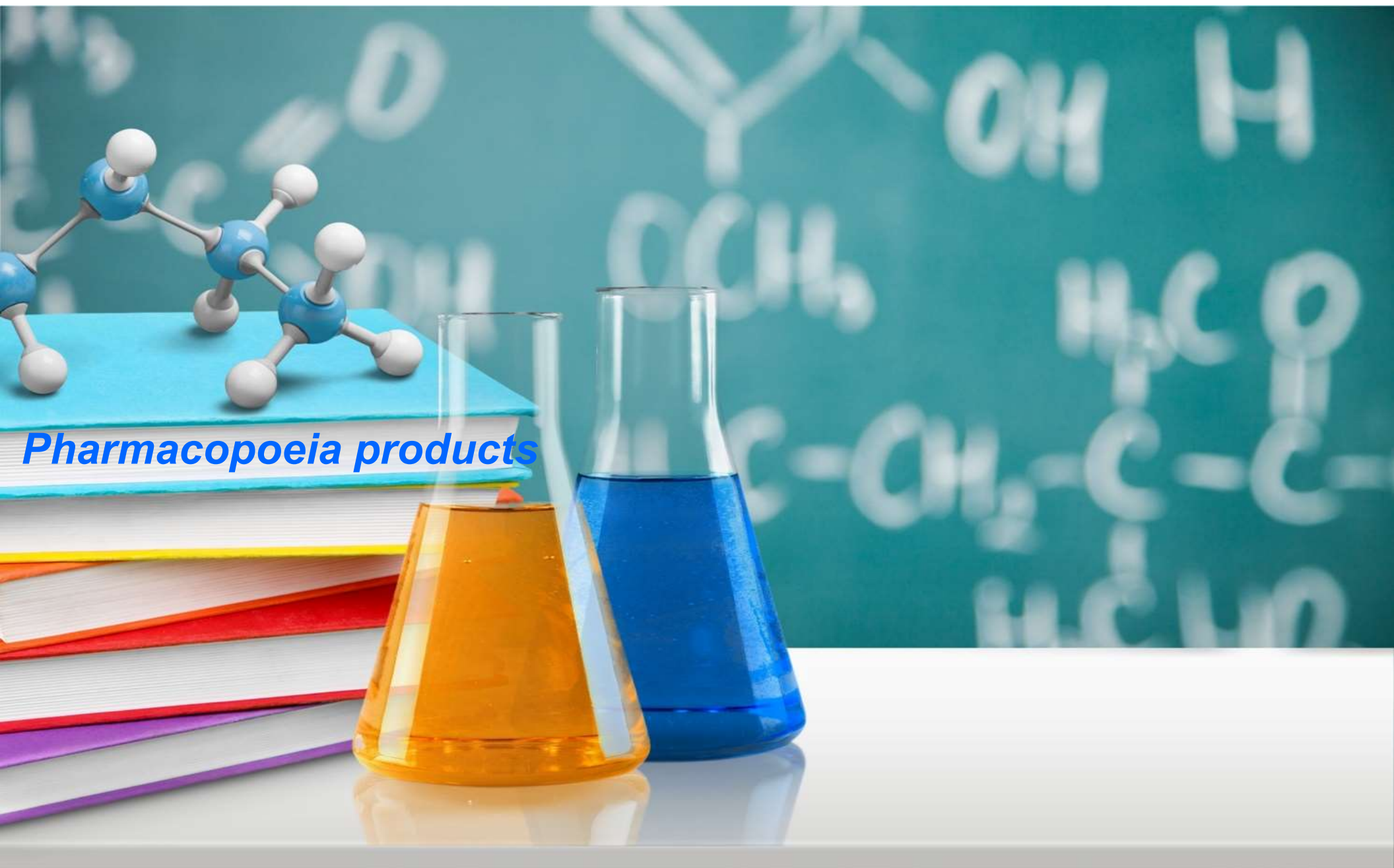
 Certificates of Analysis report the actual values

 Traceability to SI (NIST, BAM)

 For pH and conductivity standards CPAchem certifies values and uncertainties for two different temperature values

 For COD standards certified values and uncertainties are obtained by the weighted mean of two independent calibration methods





Pharmacopoeia products



Scan the QR code and go directly to our web-page: <https://www.cpachem.com/shop/pharmacopoeia>

***Pharmacopoeia products according to European, US,
British, Indian, Japanese, International and
Chinese Pharmacopoeia***

 Opalescence suspension *

 Color Primary Certified Reference Materials and Reference Materials

 Reagents*

 Standard Solutions *

 Buffer Solutions *



 Volumetric Solutions *

 Indicators

* Certification according to ISO 17025 and ISO 17034 is available upon request





Pharmacopoeia products according to European, US, British, Indian, Japanese, International and Chinese Pharmacopoeia

-  All products are prepared strictly following the latest Pharmacopoeia edition recipes
-  Options for production of large volumes




MSDS, CoAs, Transportation, Claims

 MSDS – the safety data sheets could be downloaded from CPAchem's web-page - <http://www.cpachem.com/msds>

 CoA – certificates of analysis of the already produced standards could be downloaded from CPAchem's web-page - <http://www.cpachem.com/certificates>

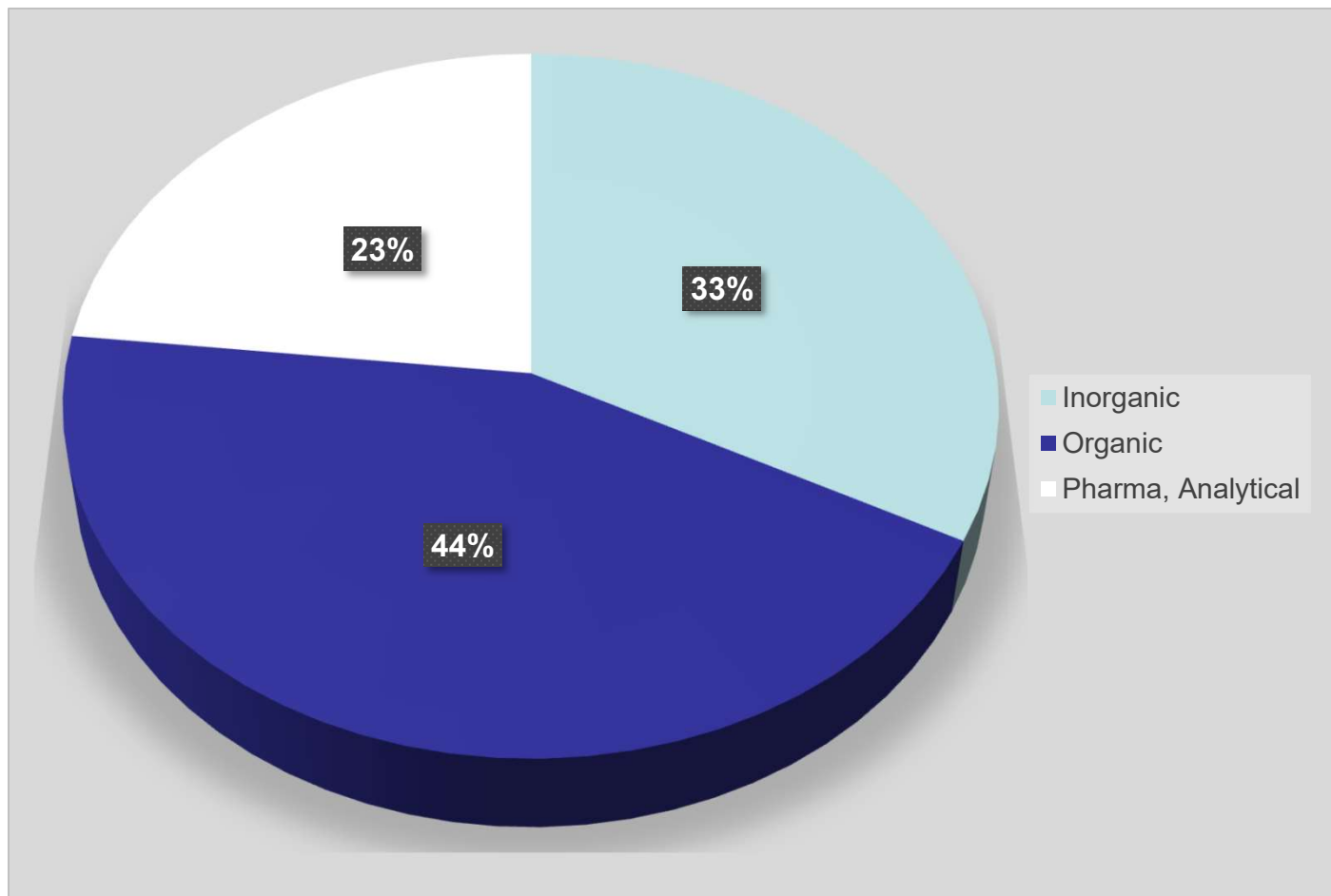
 CoA for products with private labels are automatically send to ftps, provided by the respective distributors

 Transportation – we use the best transportation options for each destination. The organic solutions have been always sent by Air

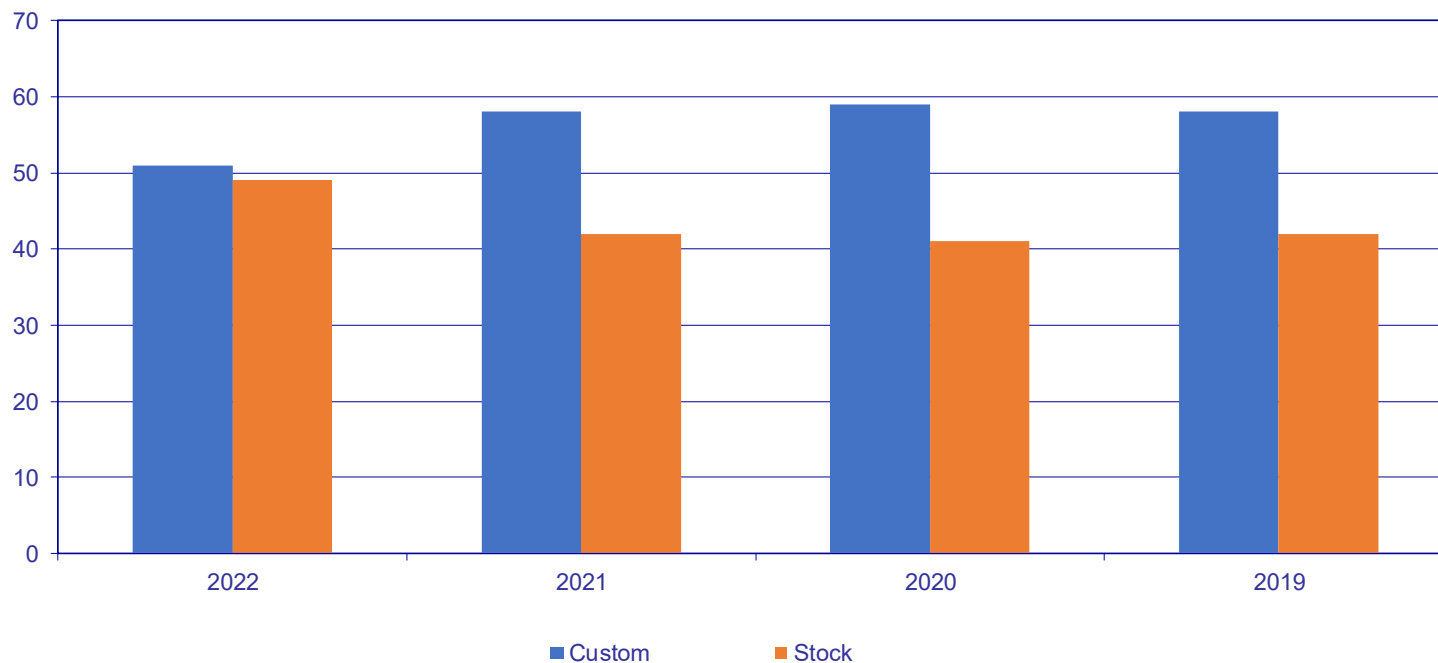
 Claims – each claim is answered within 10 days after we analyze the retaining sample of the claimed product. In case the claim has grounds, a free of charge replacement product is sent



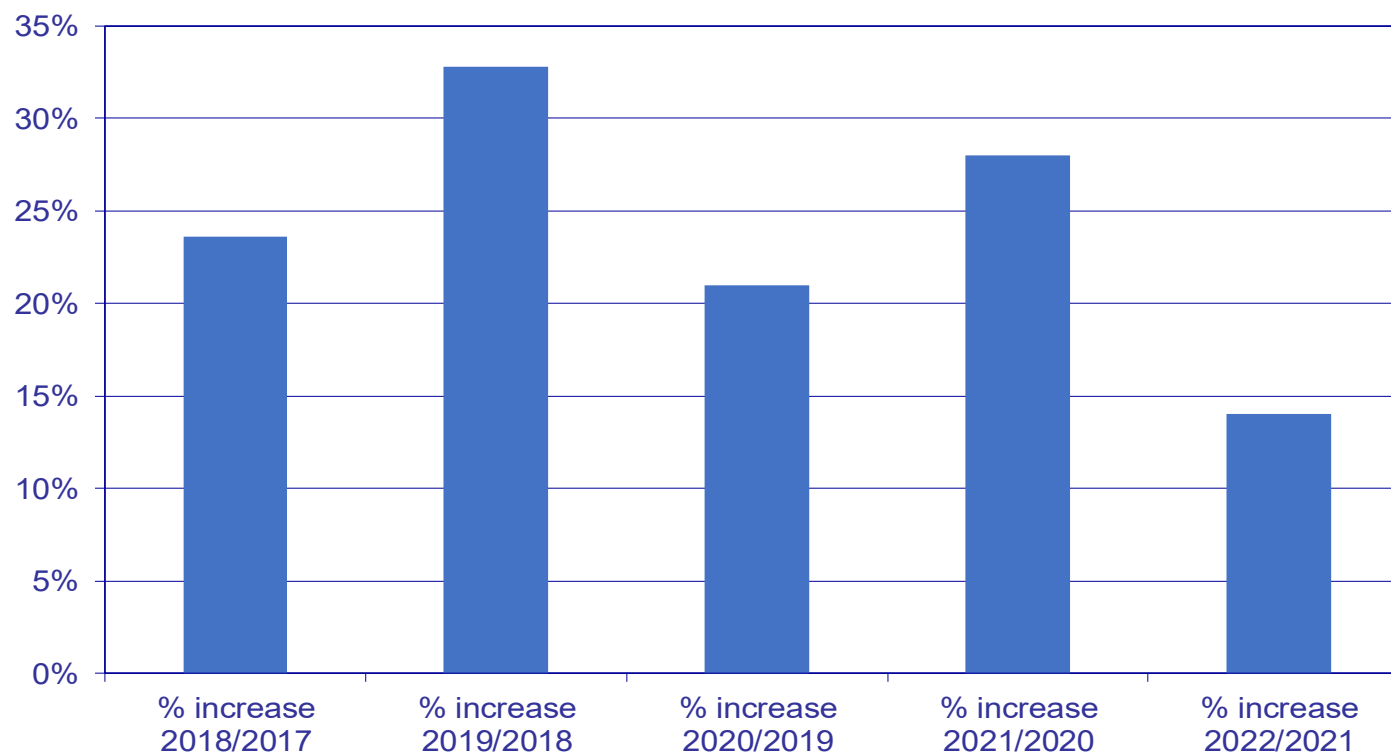
CPAchem sales distribution by product groups – 2022



**Stock and custom products % sales ratio - between
custom and stock products – 2022/2021/2020/2019**



CPAchem sales annual % increase



CPAchem staff and facilities



 Total staff – 51 employees

 44 of them are university graduates with proven track-record



*The Experts in Custom-made
Certified Reference Materials*

Our new home





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Our new home

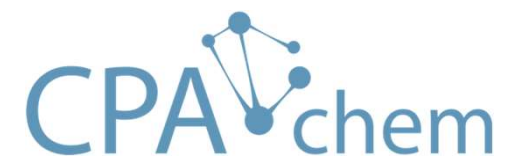


Our new home



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Our new home

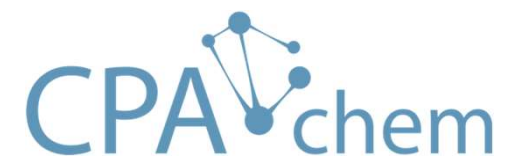


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New Products – added in 2022

 Petrochemical standards





Thank you for your attention!

