conostan

an analytichem brand

Precision
That Endures

Performance
That Evolves



The trusted name in oil standards – built on heritage, made for today, ready for tomorrow.

For nearly 50 years, **CONOSTAN**® has been recognized as the benchmark brand in oil standards and certified reference materials for the petroleum and fuels industries. Laboratories, refineries, and research teams worldwide trust the name because it consistently delivers accuracy, stability, and confidence.

Today, **CONOSTAN** is part of the **AnalytiChem** porfolio, combining its trusted heritage with global manufacturing strength and scientific expertise. Uniting proven chemistry with renewed energy, **CONOSTAN** continues to support the petroleum and fuels industries as they move toward a more sustainable future.

A Heritage of Precision

Since its beginnings in petroleum testing, the **CONOSTAN** brand has been guided by a simple principle: accurate data builds trust.

The **CONOSTAN** name has become synonymous with trust in analytical results. Built on decades of formulation expertise and controlled manufacturing, the brand continues to represent consistency across time, laboratories, and applications.

CONOSTAN®'s legacy is not about the past, it is about maintaining standards that laboratories can rely on every day!







Why Laboratories Choose Us?

The **CONOSTAN** brand has earned its reputation through performance in real laboratory environments, not just specifications on paper.

Companies choose **CONOSTAN** for:

- Proven lot-to-lot consistency
- Long-term stability for trend analysis
- Certified, traceable values
- Fit-for-purpose packaging that reduces waste and variability
- Products designed by specialists who understand petroleum testing workflows

The CONOSTAN® Journey

Learn how CONOSTAN has developed over the years

1970's



CONOSTAN *brand origin - atomic absorption (AAS) and Inductively Coupled Plasma - Optical Emission Spectrometer (ICP-OES) were emerging as analytical techniques for analysis of metals in oil. To fill the void in reliable Calibration Standards, the research and development team at ConocoPhillips created the chemistry for producing reliable Element-in-Oil Standards and the* **CONOSTAN** *brand was created.*

1985



CONOSTAN *245 Base Oil issued as SRM 1083 Standard Reference Materials by National Institute of Standards & Technology (NIST). The start of a collaboration with NIST that continues today, with additional petroleum-based standards. 40 years of collaboration with NIST proves that your trust in* **CONOSTAN***'s industry leading technology is well placed.*

1990's



CONOSTAN *D-Series Standards created - the U.S. Department of Defense's Spectrometric Oil Analysis Program Standards Committee required standards for its wear metals analysis programs. With no reliable commercial source of metals in oil standards, the* **CONOSTAN** *research team set to work in developing a reliable standard. The result was the D-Series Standards, which utilized* **CONOSTAN***'s uniquely superior proprietary chemistry. The new standards were adopted by the Department of Defense for its Joint Oil Analysis Program.*

2007



SCP SCIENCE, *a specialist in analytical chemistry reference materials, acquires the* **CONOSTAN**® *brand – from ConocoPhillips, adding its line of elements-in-oil standards to the* **SCP SCIENCE** *group of products.*

2009 – 2011



CONOSTAN *portfolio expanded to meet more application needs, such as viscosity, TAN and TBN Standards.*

2022



SCP SCIENCE *is acquired by* **AnalytiChem**, *combining expertise and resources to better serve the analytical chemistry community.*

2024



SCP SCIENCE *becomes* **AnalytiChem** *Canada, Inc.*

2025 & beyond



The **CONOSTAN**® *portfolio continues to grow, strengthened by the combined expertise and technologies of the diverse* **AnalytiChem** *brands. This collective capability enables* **CONOSTAN** *to expand into microbial testing kits, further enhancing its product offering.*

Built on Manufacturing Expertise

CONOSTAN *is not simply a label, it is a specialist* **AnalytiChem** *brand backed by true production capability.*

All **CONOSTAN** products are supported by **AnalytiChem**'s:

- Accredited manufacturing environments
- Controlled production processes
- Robust quality systems
- Scientific infrastructure
- Expertise in reference materials

This ensures tight tolerances, reliable traceability, and dependable performance across every lot.

Built on Industry Partnership

The **CONOSTAN** brand is recognized not only for products, but for its long-standing collaboration with leading equipment manufacturers, energy and petroleum companies, and global standards organizations such as ASTM and NIST.

Working side by side with industry partners, we co-create certified materials and custom solutions that meet evolving analytical challenges — from petroleum to next-generation fuels.

Traceable standards and consistent calibration are essential for generating data you can trust, whether for compliance, efficiency, or sustainability.

A Brand That Evolves With the Industry

With strong roots in petroleum testing, **CONOSTAN** continues to develop in the industry into adjacent and emerging applications, including microbiological testing and other analytical solutions.

This includes expansion into adjacent applications and new analytical solutions that support changing fuels, lubricants, and energy technologies. Customers can expect the same **CONOSTAN** precision, strengthened by **AnalytiChem**'s ongoing investment in science and manufacturing.

Precision Where It Matters

Designed for consistency in every environment — refineries, research labs, and field operations — **CONOSTAN** materials deliver:

- Stability and repeatability for accurate trend analysis
- Fit-for-purpose packaging that minimizes waste and variability
- Accredited confidence under ISO 17034 and global standards

With nearly 50 years of proven precision and partnership, the **CONOSTAN** brand continues to define what quality means.

The CONOSTAN Product Range



The trusted name in oil standards, built on heritage, made for today, ready for tomorrow.



Metallo organic Standards

Oil-based single- and multi-element standards including the S-21 and S-26 series.



Single-element Standards

This portfolio includes single-element standards in stock concentrations of 1000 or 5000 µg/g for more than 40 elements. To simplify sample preparation, most single-element standards are available with a light mineral oil (20 cSt) matrix, which makes them suitable for direct ICP injection.

Multi-element & Custom Standards

Including pre-configured element blends, aligned with industry applications. These multi-element standards are available at a range of ready-to-use concentrations to eliminate the risk of dilution errors.

Our catalog includes wear metal standards like the S-21 and S-26 CRMs and Additive Metal standards ideal for lubricant analysis. If your lab has a special concentration or composition requirement, we offer custom standards that provide convenience and ease of use without compromising quality.



Sulfur & Chlorine Standards

Standards to support instrument calibration and QC checks during sulfur or chlorine analysis for regulatory compliance and quality control.

Sulfur standards

Sulfur level is regulated in many fuel oils and is directly related to fuel quality. ASTM, ISO, EPA, and other industry standards for the determination of sulfur concentration in petroleum fuels specify the use of matrix-matched calibration standards to ensure the accuracy and reproducibility of results. **CONOSTAN** sulfur CRMs provide the accuracy and precision you need when testing according to ASTM D2622, D4294, D5453, or other common methods. With ready-to-use sulfur concentrations from 0.5 to 60000 ppm and an extensive range of matrices including Mineral Oil, Diesel, Residual Oil, Isooctane, Biodiesel, and Crude oil, this family of standards can help you achieve the highest possible integrity in your sulfur analysis data.

Chlorine standards

Our chlorine standards line is designed for use during the calibration of XRF, ICP, and similar comparative analytical techniques. The **CONOSTAN** catalog includes concentrations from 10 to 50000 ppm in 75 cSt mineral oil to cover a range of common uses.

Do you have a unique requirement? This product line can be customized to suit your specific concentration requirements or for combined sulfur
and chlorine standards.



PremiSOLV and Blank Oils

High-quality solvents to use for diluents or blanks during oil analysis.

PremiSOLV ICP Solvent

PremiSOLV is expertly designed for diluting oil and other organic liquid samples, making it the perfect choice for analytical applications (ICP, etc.). Each batch is rigorously analyzed and certified for sulfur and 40 trace metals, ensuring consistent quality and reliability. What sets **PremiSOLV** apart is its exceptionally low toxicity and minimal odor compared to traditional industrial solvents like kerosene. This makes handling safer and simplifies your lab processes. Experience the dependable performance you need for effective oil analysis with **PremiSOLV**. Safe, efficient, and reliable—trust **PremiSOLV** for your analytical needs.



Blank Oils

CONOSTAN blank oils are supplied with a comprehensive Certificate of Analysis that includes actual elemental concentrations of trace metal contaminants that can be present. Use this product range for calibration blanks or to dilute samples and standards for analysis. Available blank oils include 20 cSt base oil and 75 cSt base oil.



PartiStan Products

Industry leading secondary calibration standards for automatic particle counters.



Secondary Calibration Standards

In any oil monitoring program, particle counting is essential for tracking vital parameters, from bearing wear to hydraulic fluid cleanliness. PartiStan particle counter standards are recognized as the industry leader in secondary calibration standards for automatic particle counters in the petroleum and in-use oil industries. Our standards are NIST traceable and compliant with ISO 11171 requirements.

Each PartiStan standard comes with a detailed certificate of analysis, providing you with key data including mean particle concentration (particles/ml), standard deviation, and coefficient of variance. Rely on PartiStan to ensure the accuracy and reliability of your particle counting processes for optimal oil condition monitoring.

Super Clean Fluid

PartiStan Super Clean Fluid is prepared to have ultra-low particulates using our proprietary processing methodology. This fluid is ideal for running as a blank or for diluting samples that would otherwise saturate your automatic particle counter detector.

Flash Point & Viscosity for Petroleum

ISO 17034 certified standards for the calibration and verification of closed cup flash point testers and a range of viscometers including glass capillary.

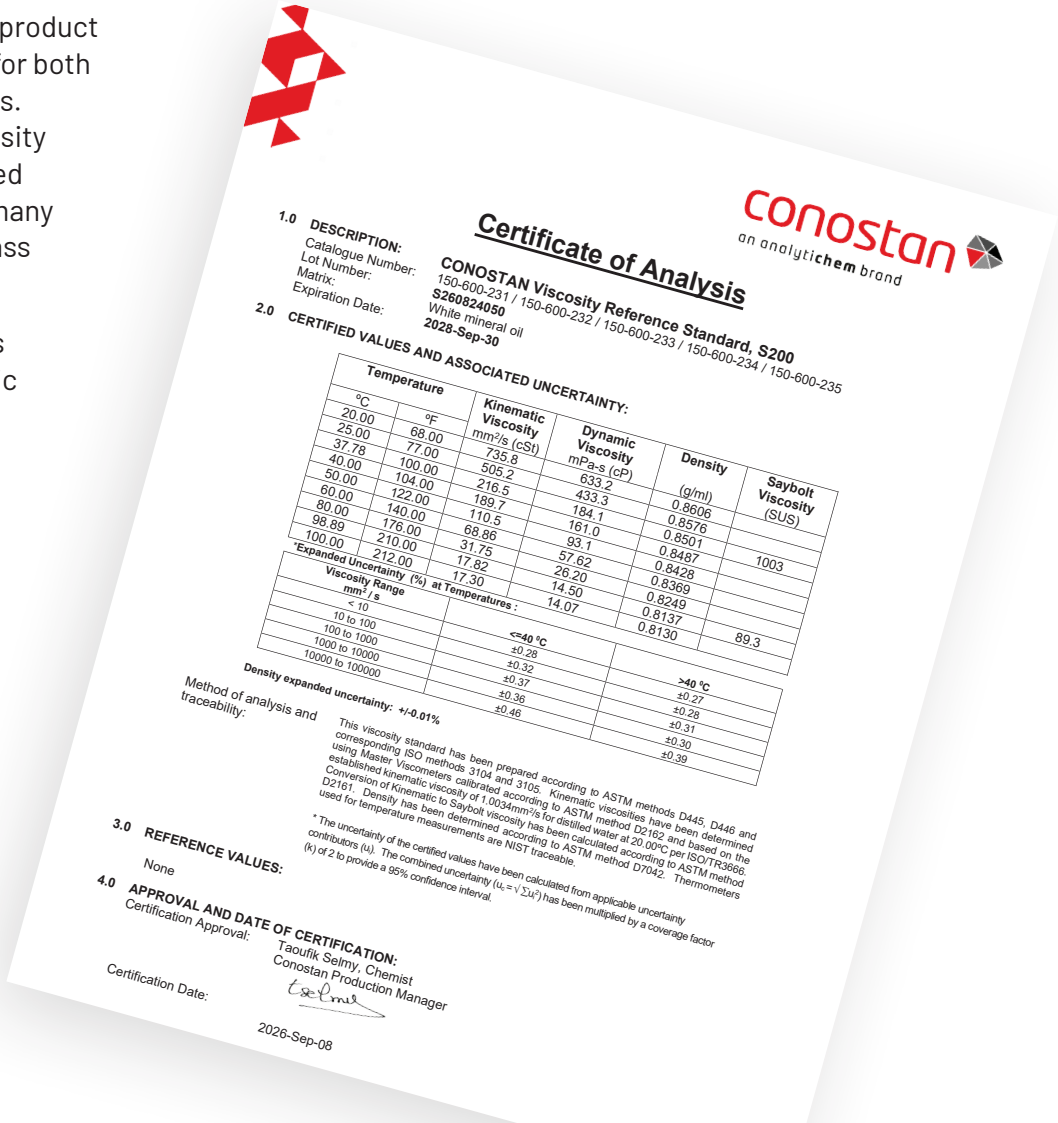
Flash Point Standards

Flash Point Standards are used to verify the performance of laboratory flash point instruments. This portfolio of standards is designed and certified for use in accordance with common petroleum industry methods, including ASTM D93, ISO 2719 & IP 34. The catalog includes more than 10 temperatures commonly analyzed for petroleum products.

Viscosity Standards

Viscosity can be a key indicator of product quality and is commonly analyzed for both new and in-use petroleum products. **CONOSTAN** General Purpose Viscosity Standards were designed to be used for calibration and verification of many types of viscometers, including glass capillary viscometers.

The certificate of analysis includes both the kinematic and the dynamic viscosity in accordance with ASTM D 445/446 and ISO 3104/3105 to ensure you have the certified values you need for your lab.



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Certificate of Analysis

1.0 DESCRIPTION:
Catalogue Number: CONOSTAN Viscosity Reference Standard, S200
Lot Number: 150-600-231 / 150-600-232 / 150-600-233 / 150-600-234 / 150-600-235
Matrix: **S2608240S0**
Expiration Date: White mineral oil
2028-Sep-30

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Temperature °C	Temperature °F	Kinematic Viscosity mm²/s (cSt)	Dynamic Viscosity mPa-s (cP)	Density (g/ml)	Saybolt Viscosity (SUS)
20.00	68.00	735.8	633.2	0.8606	
25.00	77.00	505.2	433.3	0.8576	
37.78	100.00	216.5	184.1	0.8501	
40.00	104.00	189.7	161.0	0.8487	1003
50.00	122.00	110.5	93.1	0.8428	
60.00	140.00	68.86	57.62	0.8369	
80.00	176.00	31.75	26.20	0.8249	
98.89	210.00	17.82	14.50	0.8137	
100.00	212.00	17.30	14.07	0.8130	89.3

*Expanded Uncertainty (%) at Temperatures :

Viscosity Range mm²/s	<=40 °C	>40 °C
< 10	±0.28	±0.27
10 to 100	±0.32	±0.28
100 to 1000	±0.37	±0.31
1000 to 10000	±0.36	±0.30
10000 to 100000	±0.46	±0.39

Density expanded uncertainty: +/-0.01%

Method of analysis and traceability: This viscosity standard has been prepared according to ASTM methods D445, D446 and corresponding ISO methods 3104 and 3105. Kinematic viscosities have been determined using Master Viscometers calibrated according to ASTM method D2162 and based on the established kinematic viscosity of 1.0034mm²/s for distilled water at 20.00°C per ISO/TR3666. Conversion of Kinematic to Saybolt viscosity has been calculated according to ASTM method D2161. Density has been determined according to ASTM method D7042. Thermometers used for temperature measurements are NIST traceable.

* The uncertainty of the certified values have been calculated from applicable uncertainty contributors (u_i). The combined uncertainty ($u_c = \sqrt{\sum u_i^2}$) has been multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
None

4.0 APPROVAL AND DATE OF CERTIFICATION:
Certification Approval: Taoufik Selmy, Chemist
Conostan Production Manager
Certification Date: 2026-Sep-08

TAN & TBN

Total acid number (TAN) and total base number (TBN) standard portfolio with coverage over an extensive range of mg KOH/g concentrations.



Total acid number (TAN)

The total acid number (TAN) levels of petroleum products can be used as an indicator for the potential for corrosion of hydraulic systems and other mechanical parts. **CONOSTAN** TAN standards are available in catalog concentrations from 0.5 to 10 mg KOH /g and can be customized to the exact concentration you need.

The titration curves for these standards have a prominent inflection point that is clear to read meaning you can achieve more precise measurements during titrator calibration and while running TAN titration methods.

Total base number (TBN)

For petroleum products, total base number (TBN) is a parameter used to assess the amount of base reserve additive available to neutralize the acids that are produced as a byproduct of combustion. Like our TAN standards, the **CONOSTAN** TBN standards are designed to have a dramatic inflection point supporting repeatable, accurate measurements during use.

Our catalog includes 8 concentrations between 1 and 70 mg KOH/g and custom concentrations are available upon request.



Hydrocarbon Standards

Gas chromatography (GC) remains one of the most critical analytical methods used in fuel testing for determining composition. The current range of ASTM methods for fuel testing highlight gas chromatography's broad application across petroleum and fuel analyses, covering everything from oxygenates and aromatics to light hydrocarbons and biodiesel components.

Standards for ASTM methods

Our ASTM D3606 product line delivers a complete solution. It includes high-quality check standards and calibration kits available with or without internal standards, that are designed to support both Procedure A and Procedure B. These materials are supplied in ampoules for convenient use in GC workflows and are produced under ISO 17034 accreditation.

These materials provide reliable traceability and support precise measurement performance. Whether you are testing for Tier III compliance or quality control, incorporating these certified reference materials into your processes helps optimize instrument performance resulting in consistent, dependable results over time.



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