

StablCal[®] Stabilized Formazin Turbidity Standards

USEPA Approved



- No preparation or dilutions necessary
- Completely safe to handle
- Prepared concentrations as low as 0.060 NTU
- Shelf life: 2 years from date of manufacture
- EPA approved standard for calibration
- Can be used to calibrate any turbidimeter for compliance reporting
- Quick delivery and total support, worldwide
- New low-level certified and FilterTrak standards



THERE'S ONLY ONE
WAY TO BE SURE

Precise, pre-mixed Formazin solutions

StablCal® Stabilized Formazin Turbidity Standards are true Formazin dilutions developed for use in any turbidimeter. With proprietary manufacturing technology, Hach prepares StablCal Standards in precise concentrations as low as 0.060 NTU for conventional turbidimeters. Shelf life is guaranteed for two years from the date of manufacture. Whether you are monitoring wastewater effluent, high-quality treated drinking water or an industrial process stream, you can be completely confident in the results you obtain with Hach StablCal Stabilized Formazin Standards.

StablCal is safe to handle

All StablCal standards are safe to handle in the lab. No regulation requirements restrict the shipment or disposal of StablCal.

Based on Formazin primary standards

Hach was the first to apply Formazin as a turbidity standard in the drinking water industry, more than 40 years ago. Since then, Formazin has been the only primary standard that is accepted virtually throughout the world for regulatory reporting. All other turbidity standards, both alternate and secondary, must be traced to it.

Formazin suspensions exhibit a wide range of suspended particle size and shape. Typically, Formazin particles are irregular in shape and range from 0.1 to 10.0 microns in size, closely matching the range of particulates found in real world samples. The highly predictable light-scattering properties of Formazin are the

basis of algorithm design for nephelometric instruments. Turbidimeter performance is consistently predictable when using StablCal Stabilized Formazin Standards.



StablCal Stabilized Turbidity Standards eliminate the time and labor of preparing dilutions. They can also reduce lab operating costs, since the proper preparation of Formazin requires Class A glassware and ultra-pure water.

Standards that are virtually impossible to duplicate in an ordinary laboratory

While Formazin primary standards can be prepared directly in the lab, the process is labor intensive and time consuming. Routine turbidimeter calibration requires the preparation of a series of dilute concentrations – a painstaking task that demands superb laboratory technique.

Low-level suspensions of Formazin prepared using the traditional method are even more demanding. Because they are stable for only a short time, fresh suspensions must be prepared for each use. Low-level suspensions are also extremely difficult to prepare with reliable

accuracy, since subtle errors in procedure can cause significant errors in the actual turbidity of the standard.

StablCal Stabilized Formazin Standards are equivalent in performance to Formazin primary standards, but StablCal requires no special preparation. StablCal assures accuracy by reducing the margin for error, while it greatly reduces labor and saves precious time in the laboratory.

Calibrating your instrument with StablCal can be done quickly and accurately, with –

- No preparation of Formazin stock
- No dilutions
- Minimal handling
- No special glassware or difficult lab techniques

Enhanced stability saves time and labor

StablCal Stabilized Formazin Standards contain the same light scattering polymer as traditional Formazin primary turbidity standards. They are prepared from the same 4000 NTU stock Formazin standard as traditional dilute Formazin standards. But unlike low-turbidity Formazin standards, StablCal Stabilized Formazin Standards will not deteriorate over time.

This enhanced stability is what makes it possible to manufacture ready-to-use standards in concentrations as low as 60 mNTU (0.060 NTU). And because we manufacture StablCal in large quantities, we are able to provide a low-level standard that is far more accurate than a comparable Formazin standard prepared in an ordinary laboratory.

Manufactured to meet the world's toughest quality standards – ours

From raw materials to the finished product, our quality control is based on our belief that an ultra-high quality standard requires an ultra-high quality manufacturing process. To assure the stability of StablCal Stabilized Formazin Standards, our manufacturing process far exceeds both the requirements of Standard Methods and the capabilities of an ordinary laboratory.

Regulatory Approval

StablCal is an approved calibration standard for USEPA reporting and meets the requirements of the ISO 7027 directive.

The advantage of ultra-low level standards – Introducing FilterTrak Laser Nephelometers

Hach's ability to manufacture StablCal Standards in ultra-low concentrations (as low as 60 mNTU) enabled us to create the next generation of instruments for measuring turbidity – FilterTrak Laser Nephelometers. This exciting new technology uses a light source that produces a highly collimated, monochromatic laser beam. Much more sensitive than conventional turbidimeters, the FilterTrak Laser Nephelometer is designed specifically for measurements below 1.0 NTU. Now StablCal Standards offer analysts the same reliable means of calibration and verification for laser nephelometers as they do for conventional turbidimeters.

To learn more about the new FilterTrak Laser Nephelometers, call 800-227-4224 and ask for free literature #2393, or visit us at www.hach.com.



How to Order

Fast supply whenever you need it, anywhere in the world. Hach ships 95% of all orders in the USA within 48 hours. Overseas, Hach offices and authorized distributors are on call in over 100 countries to make sure that you receive the supplies you need, when you need them.



For current price information, technical support and ordering assistance, contact the Hach office or distributor serving your area.

Hach Company is ISO 9001 Certified

In the United States, contact:

HACH COMPANY
P.O. Box 389
Loveland, Colorado 80539-0389
U.S.A.
Telephone: 800-227-4224
Fax: 970-669-2932
E-mail: orders@hach.com
www.hach.com

International customers, contact:

HACH COMPANY
P.O. Box 389
Loveland, Colorado 80539-0389
U.S.A.
Telephone: 970-669-3050
Fax: 970-669-2932
E-mail: intl@hach.com
www.hach.com

In Europe, contact:

Dr. Bruno Lange GmbH.
Industriemesstechnik
Abt. PG2
Willstätterstrasse 11
D-40549 Düsseldorf
Tel.: +49-2 11-52 88-3 78
Fax: +49-2 11-52 88-3 86
Email: beck@drlange.de
www.drlange.de

Your local distributor:

Individual Calibration Values for all Turbidimeters				
NTU Value	100 ml bottle Catalog #	500 ml bottle Catalog #	1000 ml bottle Catalog #	Sealed vials Catalog #
<0.1	26597-42	26597-49	26597-53	N/A
1	26598-42	26598-49	26598-53	N/A
10	26599-42	26599-49	N/A	N/A
18	26600-42	26600-49	N/A	N/A
20	26601-42	26601-49	26601-53	N/A
40	N/A	N/A	27463-53	N/A
100	26602-42	26602-49	N/A	N/A
180	26603-42	26603-49	N/A	N/A
200	26604-42	26604-49	N/A	N/A
800	26605-42	26605-49	N/A	N/A
1000	26606-42	26606-49	N/A	N/A
1800	26607-42	26607-49	N/A	N/A
4000	2461-42	2461-49	N/A	N/A
7500	Available in sealed vial only – part number:			25842-02

StablCal Calibration Kits				
Turbidimeter	100 ml bottles Catalog #	500 ml bottles Catalog #	1000 ml bottle Catalog #	Sealed vials Catalog #
2100 P	26594-10	26594-00	N/A	26594-05
2100 N / N IS	26621-10	26621-00	N/A	26621-05
2100 AN / AN IS	26595-10	26595-00	N/A	26595-05
2100 A	26591-10	26591-00	N/A	26591-05
Ratio 2000 & Ratio/XR	26592-10	26592-00	N/A	26592-05
18900 Ratio	26593-10	26593-00	N/A	26593-05

Certified Low-level Verification Standards*				
NTU Value	100 ml bottle Catalog #	500 ml bottle Catalog #	1000 ml bottle Catalog #	Sealed vials Catalog #
0.060	28053-42	N/A	28053-53	N/A
0.100	27233-42	N/A	27233-53	N/A
0.300	26979-42	N/A	26979-53	N/A
0.500	26980-42	N/A	26980-53	N/A
NTU Values	3 X 100 ml bottles Catalog #	3 X 1000 ml bottles Catalog #		
0.1, 0.3 & 0.5 NTU	27146-00	27163-00		

*Note: Actual values may vary from lot to lot and are individually assayed to nearest 0.001 NTU with standard deviation of less than 5 percent.

StablCal for 1720 Series Turbidimeters		
NTU Values	1 liter bottles Catalog #	1 gallon (3.78L) bottles Catalog #
Individual Values		
0.1 NTU	27233-53	27233-56
40 NTU	27463-53	27463-56
Calibration kits		
20 NTU	26596-00	Kit contains 4 bottles of 20 NTU StablCal (1 year supply) and instructions
Ultra Low Range (ULR) Verification kit		
0.1, 0.3 & 0.5 NTU	27163-00	N/A

Certified StablCal for FilterTrak 660 Laser Nephelometer		
100 mNTU	27881-53	N/A
300 mNTU	27882-53	N/A
500 mNTU	27883-53	N/A
800 mNTU	27884-53	N/A