

## D-Series Standards for Joint Oil Analysis Program (JOAP)

### *Direct from the Original Source*

Conostan D-Series standards are available directly from SCP SCIENCE. Each D-3, D-12, and D-19 standard is furnished with a certificate of analysis.

Conostan is the original source of D-Series standards. More than 30 years ago, the U.S. Department of Defense's Spectrometric Oil Analysis Program Standards Committee required standards for its wear-metals-analysis programs.



ment set to work in developing a reliable standard. The result was Conostan's uniquely superior product chemistry, which was adopted by the Department of Defense for its D-Series standards.

As with all Conostan products, you are guaranteed that the D-Series of standards are extremely stable and accurate.

### Cross Reference with U.S. Dept. of Defense Stock Numbers

Conostan product	Dept. of Defense NSN	Catalog #
D3-100	9150-01-283-0249	150-300-019
D12-5	9150-01-307-3343	150-300-005
D12-10	9150-00-179-5145	150-300-001
D12-30	9150-00-179-5144	150-300-003
D12-50	9150-00-179-5143	150-300-006
D12-100	9150-00-179-5142	150-300-002
D12-300	9150-00-179-5141	150-300-004
D19-0	9150-00-179-5137	150-300-008
D19 set	9150-01-355-1178	150-300-018

## D-Series Standards

ppm	D3 (200 g)	D12 (200 g)	D19 (100 g)
0 (blank)	150-300-008	150-300-008	150-300-008
5	*	150-300-005	150-300-013
10	*	150-300-001	150-300-009
30	*	150-300-003	150-300-011
50	*	150-300-006	150-300-014
100	150-300-019	150-300-002	150-300-010
300	*	150-300-004	150-300-012
500	*	*	150-300-015
700	*	*	150-300-016
900	*	*	150-300-017

**D3:** B, Mo, Zn

**D12:** Ag, Al, Cr, Cu, Fe, Mg, Na, Ni, Pb, Si, Sn, Ti

**D19:** Ag, Al, B, Ba, Cd, Cr, Cu, Fe, Mg, Mn, Mo, Na, Ni, Pb, Si, Sn, Ti, V, Zn

**Blank oil for D-Series:** 150-300-008

\* Custom ppm preparations available.

## D-19 Set

Product	Catalogue #
D-19 set	150-300-018

The D-19 set comprises the following concentrations and quantities:

ppm	D19	Quantity (100 g)
0 (blank)	150-300-008	4
5	150-300-013	1
10	150-300-009	1
30	150-300-011	1
50	150-300-014	1
100	150-300-010	3
300	150-300-012	2
500	150-300-015	1
700	150-300-016	1
900	150-300-017	1

## Custom Blends of D-Series Standards

If you require a combination or concentration of elements that we do not routinely stock, custom blends are available.

### We can make:

- Any combination of elements listed previously as custom concentrations
- Single-element standards at custom concentrations
- D-3, D-12, and D-19 blends at custom concentrations
- Additions to D-3, D-12, and D-19 blends

**Size:** Available in 100 g or 200 g

### Available elements:

Ag, Al, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, In, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Si, Sn, Sr, Ti, V, W, Y, Zn

## Used Oil - Certified Reference Material - *EnviroMAT*<sup>™</sup>

*EnviroMAT*<sup>™</sup> Certified Reference Materials (CRM) can be an invaluable component of any laboratory quality control program. Consensus certification removes any chance of analytical bias.

Each CRM is certified through a round-robin study employing specific methods of analysis

- Independent verification from multiple laboratories
- Includes certificate of analysis listing consensus values, confidence and tolerance intervals, and instructions for use
- Complete documentation for audit purposes

<i>EnviroMAT</i> <sup>™</sup> Standards	Symbol	Quantity	Catalog Number
Oil, used	HU-1	125ml	140-025-041

