

# Now includes Cerium

in its Family of Metallo-organic Elements in Oil Standards



## Why Cerium?

- Cerium, added to lubricating oils, improves antiwear properties and extreme pressure performance characteristics.
- Cerium added to lighter boiling or distillate fuels, jet fuel to diesel fuel, improves combustion and reduces soot formation.
- Cerium added to home heating oils, e.g. No. 6 Fuel Oil, reduces the amount of particulate matter formation.
  - Cerium is also used as a catalyst in petroleum refining.

### Conostan brand Metallo-organics

Single-element standards, Size: 50g,  
Blended in 20 cSt blank oil

Element	1000 ppm	5000 ppm
Ag	150-100-475	150-500-475
As	150-100-335	---
Al	150-100-135	150-500-135
B	150-100-055	150-500-055
Ba	150-100-565	150-500-565
Be	150-100-045	150-500-045
Bi	150-100-835	150-500-835
Ca	150-100-205	150-500-205
Cd	150-100-485	150-500-485
Ce	150-100-585	150-500-585
Co	150-100-275	150-500-275
Cr	150-100-245	150-500-245
Cu	150-100-295	150-500-295
Fe	150-100-265	150-500-265
In	150-100-495	150-500-495
K	150-100-195	150-500-195
La	150-100-575	150-500-575

Element	1000 ppm	5000 ppm
Li	150-100-035	150-500-035
Mg	150-100-125	150-500-125
Mn	150-100-255	150-500-255
Mo	150-100-425	150-500-425
Na	150-100-115	150-500-115
Ni	150-100-285	150-500-285
P	150-100-155	150-500-155
Pb	150-100-825	150-500-825
Sb	150-100-515	150-500-515
Si	150-100-145	150-500-145
Sn	150-100-505	150-500-505
Sr	150-100-385	150-500-385
Ti	150-100-225	150-500-225
V	150-100-235	150-500-235
W	150-100-745	150-500-745
Y	150-100-395	150-500-395
Zn	150-100-305	150-500-305

Element	100 ppm	Element	2000 ppm
As*	150-101-331	Sc	150-500-215
Hg*	150-101-801		
Se*	150-101-341		

\*Size: 100 g

**CONOSTAN**<sup>®</sup>  
Division of SCP SCIENCE

## Multi-element Standards:

S-21 and S-12 stocked at concentrations of 900, 500, 300, 100, 50, 30, and 10 ppm. Available in 4oz (100g) or 8oz (200g) sizes. Blended in 75 cSt Blank Oil.

### Multi-element standards, blended in 75 cSt blank oil

#### S-21 Standards

ppm	100 g	200 g
10	150-021-002	150-021-018
30	150-021-008	150-021-027
50	150-021-010	150-021-030
100	150-021-003	150-021-019
300	150-021-009	150-021-028
500	150-021-011	150-021-031
900	150-021-015	150-021-035

S-21: Ag, Al, B, Ba, Ca, Cd, Cr, Cu, Fe, Mg, Mn, Mo, Na, Ni, P, Pb, Si, Sn, Ti, V, Zn,

#### S-12 Standards

ppm	100 g	200 g
10	150-012-001	150-012-009
30	150-012-004	150-012-012
50	150-012-006	150-012-014
100	150-012-002	150-012-010
300	150-012-005	150-012-013
500	150-012-007	150-012-015
900	150-012-008**	150-012-016**

S-12: Ag, Al, Cr, Cu, Fe, Mg, Na, Ni, Pb, Si, Sn, Ti

\*\* 900 ppm nominal value, 885 ppm actual value

#### AM-Special

ppm	100 g	200 g
900	150-250-014	150-250-027
1000	150-250-006	150-250-016

AM-Special: Ba, Ca, Mg, P, Zn



## Conostan specializes in custom blends:

Custom blends are available from CONOSTAN® if your spectrometric analysis of metals requires a combination or concentration of elements we do not routinely stock. The above single and multi-element blends are available at different concentrations. Create your own S-21, S-12, or AM-Special blends. Any metal available for custom blends can be added to the standard multi-element blends. Popular additions to S-21 are Potassium, Lithium and Antimony.

## Conostan also manufactures the following standards and reagents:

- Chlorine in Oil
- Sulfur in Residual Oil, Sulfur in Diesel Fuel, Sulfur in Mineral oil, and Sulfur in Iso-Octane
- Viscosity Standards
- FTIR Standards
- Partistan Particle Count Standards
- D-series Special Military Multi Element Blends
- PremiSolv ICP Spectroscopy solvent

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