BC-517S,BC-517H,BC-517L,BC-517P
Mineral Oil Based Liquid Scintillators

Mineral oil based liquid scintillators are used in large tanks where exceptionally long mean free paths are essential and high light output is of secondary importance. These mineral oil scintillators are compatible with acrylic plastics such as Plexiglas® and Perspex®, plus a wide variety of metals and some other plastics and reflective coatings. Glue joints made with solvent action cements should be annealed.

SGCD mineral oil scintillators have flash points rendering them relatively safe for use in large containers and large volume detector arrays. They are especially suited where the expense of large area plastic scintillators would be prohibitive.

SGCD takes special care when manufacturing its mineral oil liquid scintillators. Our people are keenly aware of the particularly high requirements regarding light transmission and product uniformity demanded by the physics community. Therefore, in addition to employing standard, rigorous purification and handling techniques, SGCD uses special test facilities for light transmission measurement in order to guarantee customer satisfaction with every shipment of this scintillator.

Scintillation Properties –

	BC-517S	BC-517H	BC-517L	BC-517P
Light Output, % Anthracene:				
Saturated with Nitrogen	66	52	39	28
Saturated with Air	51	40	30	21
Mean Free Path for 400-500nm light, meters	>4	>5	>5	>6
Wavelength of max. emission, nm	425	425	425	425

Atomic Composition –

No. H Atoms per cc	6.50×10^{22}	7.06×10^{22}	7.40×10^{22}	7.50×10^{22}
No. C Atoms per cc	3.83×10^{22}	3.73×10^{22}	3.68×10^{22}	3.65×10^{22}
Atomic Ratio (H:C)	1.70	1.89	2.01	2.05

General Technical Data –

Refractive Index:

BC-517S 1.49
BC-517H 1.476
BC-517L 1.471
BC-517P 1.47

Flash Point (T.O.C.):

BC-517S ..... 53°C
BC-517H ..... 81°C
BC-517L ..... 102°C
BC-517P ..... 115°C

Specific Gravity:

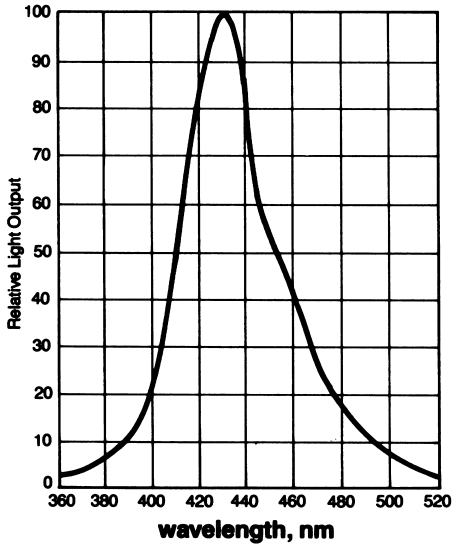
BC-517S 0.87
BC-517H 0.86
BC-517L 0.86
BC-517P 0.85

SAINT-GOBAIN
CRYSTALS

SAINT-GOBAIN
CRYSTALS

BC-517S,BC-517H,BC-517L,BC-517P
Mineral Oil Based Liquid Scintillators

Emission Spectrum –



Manufacturer reserves the right to alter specifications.
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