

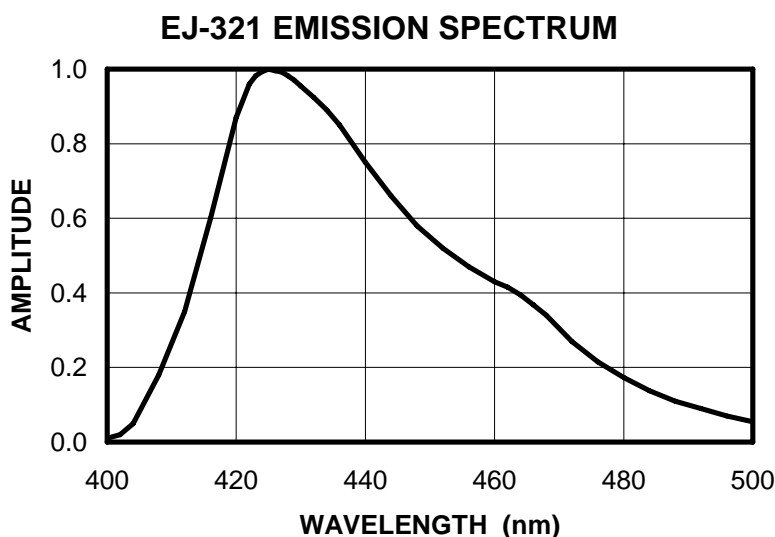
## EJ-321 SERIES MINERAL OIL BASED LIQUID SCINTILLATORS

This is a family of four different formulations, EJ-321L, EJ-321H, EJ-321P, and EJ-321S, all based on mineral oil. The main difference between them is light output which varies primarily by the percentage of mineral oil in the various solutions. Other properties which vary with the light output are optical mean free path, flash point and hydrogen-to-carbon ratio. They are recommended for use in large tanks including acrylic tanks where lower costs are important.

The tendency for chemical action on container components runs in parallel with the light output. In the construction of acrylic tanks, it is strongly recommended that only cell cast sheet stock, not extruded materials, be employed. Glue joints should be made with solvent action cements and should be annealed afterward. Extruded tubing has been successfully used but only after the inside walls of the cells had been passivated with a thin coating of polyvinyl alcohol. EJ-231P may also be used in tanks fabricated with gray PVC plastic.

These liquids are normally packaged in 55 gallon (208 liter) drums, sealed under nitrogen. Deliveries can also be made in 6000 gallon (20,000 liter) tankwagons and shipping containers.

PROPERTIES	EJ-321L	EJ-321H	EJ-321P	EJ-321S
<b>Light Output, % of Anthracene:</b>				
Saturated with Nitrogen	39%	52%	28%	66%
Saturated with Air	30%	40%	21%	51%
<b>Mean Free Path (400-500 nm):</b>	>5 m	> 5 m	> 6 m	> 4 m
<b>Specific Gravity:</b>	0.86	0.86	0.85	0.87
<b>Wavelength of Maximum Emission:</b>	425 nm	425 nm	425 nm	425 nm
<b>Decay Time, Short Component:</b>	2.0 ns	2.0 ns	2.2 ns	2.0 ns
<b>Refractive Index:</b>	1.47	1.48	1.47	1.49
<b>Flash Point (T.O.C.):</b>	102°C	81°C	115°C	74°C
<b>No. of H Atoms per cm<sup>3</sup> (x 10<sup>22</sup>):</b>	7.37	7.03	7.47	6.48
<b>No. of C Atoms per cm<sup>3</sup> (x 10<sup>22</sup>):</b>	3.66	3.72	3.63	3.83
<b>No. of Electrons per cm<sup>3</sup> (x 10<sup>22</sup>):</b>	29.3	29.4	29.3	29.4



**ELJEN TECHNOLOGY**  
PO Box 870, 300 Crane Street  
Sweetwater TX 79556 USA

Tel: (325) 235-4276 or (888) 800-8771  
Fax: (325) 235-0701  
Website: [www.eljentechnology.com](http://www.eljentechnology.com)