# **PRODUCT** INFORMATION



## Coumarin 6

Item No. 40214

CAS Registry No.: Formal Name:	38215-36-0 3-(2-benzothiazolyl)-7-(diethylamino)-	
	2H-1-benzopyran-2-one	
Synonyms:	Coumarin 540, NK 1858, NSC 290432	S N
MF:	C <sub>20</sub> H <sub>18</sub> N <sub>2</sub> O <sub>2</sub> S	
FW:	350.4	
Purity:	≥98%	0
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	
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Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

#### Laboratory Procedures

Coumarin 6 is supplied as a solid. A stock solution may be made by dissolving the coumarin 6 in the solvent of choice, which should be purged with an inert gas. Coumarin 6 is soluble in DMSO and slightly soluble in chloroform and methanol.

### Description

Coumarin 6 is an acid-sensitive fluorescent probe.<sup>1,2</sup> Upon protonation, coumarin 6 displays a shift in emission maxima from 410 to 510 nm upon excitation at 157 nm.<sup>1</sup> Coumarin 6 has been commonly used in photolithography.<sup>1,2</sup>

#### References

- 1. Scaiano, J.C., Laferriere, M., and Ivan, M.G. A protocol for the verification of acid generation in 157 nm lithography. Macromolecules 36(18), 6692-6694 (2003).
- 2. Frenette, M., Ivan, M.G., and Scaiano, J.C. Use of fluorescent probes to determine catalytic chain length in chemically amplified resists. Can. J. Chem. 83(6-7), 869-874 (2011).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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