



UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899-0001

DATE: 26 May 2015

Product Identifier

SRM Number: 2514
SRM Name: Wavelength Calibration Reference for 1560 nm to 1595 nm
(Carbon Monoxide $^{12}\text{C}^{16}\text{O}$)

Under the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1200, this Standard Reference Material (SRM) is NOT classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified. There are no hazard pictograms, hazard statements or signal word associated with it. Safety Data Sheet information is not required. This document may be used in conjunction with your hazard communication program.

Exemption: 1910.1200 (c). This SRM is an Article, as the word is defined by OSHA, where *Article* means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of 1910.1200), and does not pose a physical hazard or health risk to employees.

Description: This SRM is intended for wavelength calibration in the spectral region from 1560 nm to 1595 nm. SRM 2514 is a single-mode optical-fiber-coupled absorption cell containing carbon monoxide ($^{12}\text{C}^{16}\text{O}$) gas at a pressure of 133 kPa (1000 Torr). The absorption path length is 80 cm and the absorption lines are about 50 pm wide. The cell is packaged in a small instrument box (approximately 32 cm long \times 12.5 cm wide \times 9 cm high) with two FC/PC fiber connectors for the input and output of a user-supplied light source. This SRM can be used for calibrating a variety of wavelength-measuring instruments, such as optical spectrum analyzers, tunable lasers, and wavelength meters. Carbon monoxide $^{12}\text{C}^{16}\text{O}$ has about 40 accurately measured absorption lines in the 1560 nm to 1595 nm wavelength region.

Disposal: SRM 2514 should be disposed of in accordance with local, state, and federal regulations.

Transport Information: This material is not regulated by the U.S. Department of Transportation (DOT) and/or International Air Transportation Association (IATA).

Disclaimer: This document was prepared carefully, using current references. Users of this SRM should ensure that this document and the corresponding Certificate of Analysis in their possession are current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; e-mail srmmsds@nist.gov; or via the Internet at <http://www.nist.gov/srm>.