



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

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Product Identifier

RM Number: 8820
RM Name: Scanning Electron Microscope Scale Calibration Artifact

Under the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1200, this Reference Material (RM) 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 RM 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: RM 8820 is primarily intended to be used for X and Y scale (or magnification) calibrations from less than 10 times magnifications to more than 100 000 times magnifications in scanning electron microscopes (SEMs). It was designed to provide good contrast at low and high electron landing energies (accelerating voltages). Beyond testing scale calibration, it can be used for non-linearity measurements, especially at lower than 10 000 times magnifications. It can also be used for optical and scanning probe and other types of microscopes. A unit of RM 8820 consists of a 20 mm × 20 mm lithographically patterned silicon chip.

Disposal: RM 8820 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 RM should ensure that this document and the corresponding Report of Investigation 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>.