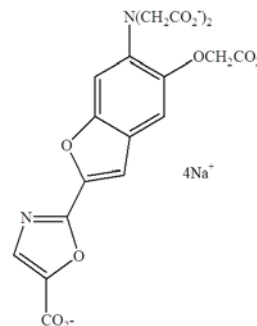


## PRODUCT AND SAFETY DATA SHEET

**PRODUCT NAME:** **Furaptra, tetrasodium salt** (also known as Mag-Fura-2, tetrasodium salt)**CATALOG #:** **50036****MOLECULAR INFORMATION:**  $C_{18}H_{10}N_2Na_4O_{11}$   
MW: 523**PROPERTIES:**

<b>Color &amp; Form</b>	Light yellow solid
<b>Purity</b>	≥ 95% by HPLC
<b>Solubility</b>	Soluble in water (pH > 6)
<b>Absorption/Emission</b>	369nm/511nm (H <sub>2</sub> O)
<b>Extinction Coefficient</b>	22,000

**STORAGE AND HANDLING:** Store desiccated at ≤ 4 °C. Protect from light.**APPLICATION:** Furaptra is a UV-excitable fluorescent indicator for magnesium with a  $K_d$  of 1.9 mM.<sup>1,2</sup> Similar to Fura-2, the excitation wavelength of Mag-Fura-2 undergoes a blue shift from 369 nm to 330 nm. Mag-Fura-2 also responds to  $Ca^{2+}$  but with a significantly lower  $K_d$  than Fura-2 to  $Ca^{2+}$ . An important application of Mag-Fura-2 is its use in detecting high, transient  $Ca^{2+}$  concentration during  $Ca^{2+}$  spikes.<sup>3,4</sup> Mag-Fura-2/tetrasodium salt can be loaded into cells by microinjection or scrape loading.Ref: 1) *Pro. Natl. Acad. Sci. USA* **86**, 2981(1989); 2) *Am. J. Physiol.* **256**, C540(1989); 3) *Neuron* **10**, 21(1993); 4) *Biophys. J.* **68**, 2156(1995)**TOXICITY:** Unknown.

<b>FIRST AID:</b>	Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.
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<b>Disclaimer:</b> <i>Materials from Biotium are sold for research use only, and are not intended for food, drug, household, or cosmetic use. Biotium is not liable for any damage resulting from handling or contact with this product.</i>
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