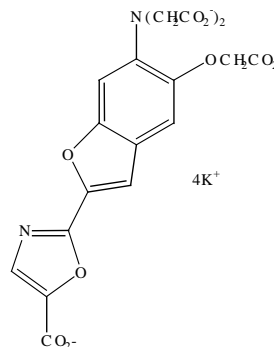


PRODUCT AND SAFETY DATA SHEET

PRODUCT NAME: **Furaptra, tetrapotassium salt** (also known as Mag-Fura-2, tetrapotassium salt)

CATALOG #: **50035**

MOLECULAR INFORMATION: $C_{18}H_{10}K_4N_2O_{11}$
MW: 587

**PROPERTIES:**

Color & Form Light yellow solid
Purity $\geq 95\%$ by HPLC
Solubility Soluble in water (pH > 6)
Absorption/Emission 369nm/511nm (H₂O)
Extinction Coefficient 22,000

STORAGE AND HANDLING: Store desiccated at -20 °C. Protect from light.

APPLICATION: Furaptra is a UV-excitable fluorescent indicator for magnesium with a K_d of 1.9 mM.^{1,2} 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.^{3,4} Mag-Fura-2/tetrapotassium 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.

FIRST AID: 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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