

# THIOTEPA

BRAND NAME	THIOTEPA-REACH
DRUG CLASS	Cytotoxic antineoplastic, alkylating agent
AVAILABILITY	Vial contains 15 mg or 100 mg of thiotepa. <sup>1</sup>
WARNING	Cytotoxic. Strict handling precautions are required.
pH	5.5–7.5 when reconstituted <sup>1</sup>
PREPARATION	<p><b>In a cytotoxic drug safety cabinet:</b></p> <p>Reconstitute the 15 mg vial with 1.5 mL and the 100 mg vial with 10 mL of water for injections to make a concentration of 10 mg/mL. The solution is clear to slightly opalescent.<sup>1</sup></p> <p>Dilute the dose in 50–100 mL or 500–1000 mL of sodium chloride 0.9%.<sup>1,2</sup> Check your local guidelines for the most suitable volume.</p> <p>The final concentration should be 0.5–1 mg/mL.<sup>1</sup></p>
STABILITY	<p>Vial: store at 2 to 8 °C. Do not freeze.<sup>1</sup> Protect from light.<sup>3</sup></p> <p><b>When prepared by pharmacy under aseptic conditions:</b></p> <p>Reconstituted solution: stable for 8 hours at 2 to 8 °C.<sup>1</sup> Stability has been demonstrated for 28 days at 2 to 8 °C.<sup>3</sup></p> <p>Infusion solution: stable for 4 hours at 25 °C or 24 hours at 2 to 8 °C.<sup>1</sup> More stability information is available.<sup>3</sup></p>
ADMINISTRATION	
<b>IM injection</b>	No information
<b>SUBCUT injection</b>	No information
<b>IV injection</b>	Not recommended
<b>IV infusion</b>	<p>Infuse over 2 to 4 hours.<sup>1</sup> Check your local guidelines. Infusion times of 30 minutes or 2 hours may be used depending on the protocol.<sup>2</sup></p> <p>Use a 0.2 micrometre inline filter.<sup>1</sup></p>
<b>Other</b>	Also suitable for intracavitary and intravesical use. <sup>4</sup>
COMPATIBILITY	Sodium chloride 0.9% <sup>1</sup>
INCOMPATIBILITY	No information
SPECIAL NOTES	<p>High doses of thiotepa can cause hyperpigmentation of the skin, erythema and blistering.<sup>2</sup></p> <p>Thiotepa is excreted onto the skin through sweat. Check your local guidelines for handling precautions required when changing patient dressings and bed linen.<sup>2</sup></p> <p>Allergic reactions are rare but urticaria and laryngeal oedema have been reported.<sup>1</sup></p> <p>Moderate emetogenic risk.<sup>5</sup> Check your local guidelines for premedication requirements.</p>

## REFERENCES

1. Product information. Available from [www.tga.gov.au](http://www.tga.gov.au). Accessed 19/07/2022.
2. eviQ [internet]. Sydney: Cancer Institute NSW. Available from [www.eviq.org.au](http://www.eviq.org.au). Accessed 19/07/2022.
3. Thiotepa. In IBM Micromedex IV Compatibility [Internet]. Greenwood Village, CO: IBM Watson Health. Accessed 19/07/2022.
4. Thiotepa. In: IBM Micromedex DRUGDEX [Internet]. Greenwood Village, CO; IBM Watson Health. Accessed 19/07/2022.
5. Clinical resource: Prevention of antineoplastic induced nausea and vomiting [v5. May 2021]. eviQ [internet]. Sydney: Cancer Institute NSW. Available from [www.eviq.org.au](http://www.eviq.org.au). Accessed 19/07/2022.