The dilithium diamide reagent obtained from N,N'-di(4-t-butyl)-1,4-diazabutadiene and two equivalents of lithium metal reacts with anhydrous gallium trichloride in tetrahydrofuran / hexane, followed by treatment with metallic potassium, to give the title compound in about 40% yield. Cyclic imides of gallium(III) and gallium(II) are by-products of this process. The structure of \( \text{Li}_2\{[\text{cis-}C_2\text{H}_2\text{N}^t\text{Bu}]_2\text{Ga}\} \) has been determined from single crystals containing one mole equivalent of tetrahydrofuran. The gallium atom is chelated by two diamide ligands. One of the five-membered chelate rings is planar while the second one is folded at its nitrogen atoms. The lithium atom is \( \eta^4 \)-coordinated to the 1,4-diazabutene(2) unit of this ring and further to the oxygen atom of the solvent molecule.