Mer-Triammine Trifluorido Iron(III), 
Mer-[FeF₃(NH₃)₃]

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Metal fluorides are scarcely soluble in liquid ammonia, and their ammine complexes are rare. The synthesis and crystal structure of the first ammine complex of an iron fluoride, the mer-triammine trifluorido iron(III), mer-[FeF₃(NH₃)₃], is presented. The compound crystallizes in the form of colorless, needle-shaped single crystals in the monoclinic space group $P2_1/n$ with $Z = 4$. The molecules are interconnected by strong N–H···F hydrogen bonds.

Key words: Iron, Fluoride, Ammine, Crystal Structure, Liquid Ammonia