A new system has been developed for more efficient and higher performance liquid metal cooling during higher power, energy, and temperature operations. However, the thermophysical properties were required in order to ascertain the possible application. This study presents the experimental result of the temperature dependency for density, surface tension, viscosity, electrical conductivity, thermoelectric power, and thermal conductivity of the eutectic alloy Ga-Sn-Zn. The melting temperature of eutectic Ga-Sn-Zn alloy was obtained using calorimetry and thermal mechanical analysis.

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