

Nippon Sanso Matheson, Inc. dba Nippon Sanso Carbonic Products

Dry Ice Technical Specifications

Physical properties

April 2026

Property	Value
Formula	CO ₂
Molecular Weight	44.01
Appearance	Colorless, odorless gas; colorless liquid, or white opaque solid (dry ice)
Density Solid (Dry Ice)	97.5189 lb./ft. ³ at -109.3° F
Density Liquid	63.69 lb./ft. ³ at 0° F
Density Gas	0.1234 lb./ft. ³ at 32° F
Melting Point	-69.9° F, 75.1 PSIA
Boiling Point	-109.3° F (Sublimes)
Triple Point	-69.9° F, 75.1 PSIA
Critical Temperature	87.8° F
Critical Pressure	1069.4 PSIA
Critical Density	28.9519 lb./ft. ³
Specific Heat Gas	0.1989 BTU/lb. ° F (60° F)
Specific Heat Liquid	0.53 BTU/lb. ° F (0° F)
Ratio of Heat Capacities	1.3
Latent Heat of Fusion (Triple Point)	85 BTU/lb. (69.9° F)
Latent Heat of Vaporization (Liquiflow)	122 BTU/lb. (0° F)
Latent Heat of Sublimation (Dry Ice)	246 BTU/lb. (-110° F)
Viscosity Gas	0.015 Centipoises (32° F)
Viscosity Liquid	0.14 Centipoises (0° F)
Thermal Conductivity Gas	0.0085 BTU ft./ft. ² ° F Hr. (32° F)
Thermal Conductivity Liquid	0.11 BTU ft./ft. ² ° F Hr. (0° F)
Surface Tension (Liquid)	8.23 Dynes/cm (0° F)
Solubility in H ₂ O	1.79 ft. ³ CO ₂ Gas/ft. ³ H ₂ O(32° F)