9/5 C + 32 = F

Molar Heat Capacity

|  |  |  |  |
| --- | --- | --- | --- |
| **Substance** | **C** | **Substance** | **C** |
| Water (Liquid) | 75.3 J / K mol | Helium | 25.2 J / K mol |
| Water (Gas) | 36.8 J / K mol | Hydrogen | 28.8 J / K mol |
| Water (Solid) | 38.09 J / K mol | Iron | 25.1 J / K mol |
| Lead (Solid) | 26.7 J / K mol | Aluminum | 24.2 J / K mol |
| Lead (Liquid) | 27.4 J / K mol | Tungsten | 24.2 J / K mol |
| Nitrogen (gas) | 29.1 J / K mol | Copper | 24.5 J / K mol |
| Nitrogen (liquid) | 57.2 J / K mol | Octane | 254 J / K mol |
| Silver | 25.3 J / K mol | NaCl | 50.5 J / K mol |
| Cobalt | 50.6 J / K mol | Nickel | 26.1 J / K mol |
| Silicon | 19.7 J / K mol | Zinc | 25.2 J / K mol |
| Cadmium | 25.6 J / K mol | Gold | 25.42 J / K mol |

Specific Heat Capacity

|  |  |  |  |
| --- | --- | --- | --- |
| **Substance** | **c** | **Substance** | **c** |
| Water (Liquid) | 4.183 J/K g  | Helium | 5.193 J/K g |
| Water (Gas) | 2.080 J/K g | Hydrogen | 14.30 J/K g |
| Water (Solid) | 2.05 J/K g | Iron | 0.449 J/K g |
| Lead (Solid) | 0.129 J/K g | Aluminum | 0.891 J/K g |
| Lead (Liquid) | 0.132 J/K g | Tungsten | 0.132 J/K g |
| Nitrogen (gas) | 1.04 J/K g | Copper | 0.385 J/K g |
| Nitrogen (liquid) | 2.04 J/K g | Octane | 2.22 J/K g |
| Silver | 0.233 J/K g | NaCl | 0.864 J/K g |
| Cobalt | 0.858 J/K g | Nickel | 0.444 J/K g |
| Silicon | 0.701 J/K g | Zinc | 0.388 J/K g |
| Cadmium | 0.228 J/K g | Gold | 0.129 J/K g |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Melting Point | Heat Of Fusion | Boiling Point | Heat of Vaporization |
| Water | 273 K | 6010 J/mol | 373 K | 40,700 J/mol |
| Nitrogen | 63 K | 719 J/mol | 77 K | 5590 J/mol |
| Lead | 601 K | 4770 J/mol | 2023 K | 177,800 J/mol |