tin

| Inchi: | InChI=1S/Sn |
|----------------------|-----------------------------|
| InchiKey: | ATJFFYVFTNAWJD-UHFFFAOYSA-N |
| Formula: | Sn |
| SMILES: | [Sn] |
| Mol. weight [g/mol]: | 118.71 |
| CAS: | 7440-31-5 |

Physical Properties

| Property code | Value | Unit | Source |
|---------------|-------------------|---------|---|
| ea | 1.11 | eV | NIST Webbook |
| ea | 1.11 ± 0.02 | eV | NIST Webbook |
| ea | 1.15 ± 0.15 | eV | NIST Webbook |
| ea | 1.11 ± 0.00 | eV | NIST Webbook |
| hf | 301.20 ± 1.50 | kJ/mol | NIST Webbook |
| hfus | 7.13 | kJ/mol | Odd even effect in melting properties of 12 alkane-a,x-diamides |
| ie | 7.34 ± 0.00 | eV | NIST Webbook |
| ie | 7.87 | eV | NIST Webbook |
| ie | 7.40 ± 0.30 | eV | NIST Webbook |
| ie | 7.34 | eV | NIST Webbook |
| ie | 7.34 | eV | NIST Webbook |
| ie | 7.30 ± 0.20 | eV | NIST Webbook |
| ie | 7.28 ± 0.07 | eV | NIST Webbook |
| ie | 7.34 | eV | NIST Webbook |
| sgb | 168.49 ± 0.00 | J/mol×K | NIST Webbook |
| SS | 51.18 ± 0.08 | J/mol×K | NIST Webbook |
| tf | 504.87 ± 0.30 | К | NIST Webbook |
| tf | 505.11 ± 0.00 | К | NIST Webbook |
| tf | 505.15 ± 1.00 | К | NIST Webbook |

Temperature Dependent Properties

Property code

| dvisc | 0.0012530 | Paxs | 873.00 | A Novel Vibrating Finger Viscometer for High-Temperature Measurements in Liquid Metals and Alloys | |
|---------|-----------|------|---------|---|--|
| dvisc | 0.0011420 | Paxs | 973.00 | A Novel Vibrating Finger Viscometer for High-Temperature Measurements in Liquid Metals and Alloys | |
| dvisc | 0.0010870 | Paxs | 1073.00 | A Novel Vibrating Finger Viscometer for High-Temperature Measurements in Liquid Metals and Alloys | |
| speedsl | 2470.00 | m/s | 608.00 | Temperature Dependence of the Velocity of Sound in Liquid Metals of Group XIV | |
| speedsl | 2408.00 | m/s | 804.00 | Temperature Dependence of the Velocity of Sound in Liquid Metals of Group XIV | |
| speedsl | 2416.00 | m/s | 814.00 | Temperature Dependence of the Velocity of Sound in Liquid Metals of Group XIV | |
| speedsl | 2379.00 | m/s | 919.00 | Temperature Dependence of the Velocity of Sound in Liquid Metals of Group XIV | |
| speedsl | 2366.00 | m/s | 1012.00 | Temperature Dependence of the Velocity of Sound in Liquid Metals of Group XIV | |
| speedsl | 2332.00 | m/s | 1025.00 | Temperature Dependence of the Velocity of Sound in Liquid Metals of Group XIV | |

| speedsl | 2306.00 | m/s | 1218.00 | Temperature Dependence of the Velocity of Sound in Liquid Metals of Group XIV | |
|---------|---------|-------|---------|---|--|
| speedsl | 2234.00 | m/s | 1453.00 | Temperature Dependence of the Velocity of Sound in Liquid Metals of Group XIV | |
| speedsl | 2242.00 | m/s | 1463.00 | Temperature Dependence of the Velocity of Sound in Liquid Metals of Group XIV | |
| tcondl | 33.00 | W/m×K | 603.20 | A Novel Instrument for the Measurement of the Thermal Conductivity of Molten Metals. Part II: Measurements | |
| tcondl | 32.00 | W/m×K | 571.20 | A Novel Instrument for the Measurement of the Thermal Conductivity of Molten Metals. Part II: Measurements | |
| tcondl | 30.70 | W/m×K | 534.30 | A Novel Instrument for the Measurement of the Thermal Conductivity of Molten Metals. Part II: Measurements | |
| tcondl | 33.50 | W/m×K | 630.00 | A Novel Instrument for the Measurement of the Thermal Conductivity of Molten Metals. Part II: Measurements | |
| tcondl | 34.30 | W/m×K | 678.20 | A Novel Instrument for the Measurement of the Thermal Conductivity of Molten Metals. Part II: Measurements | |

| tcondl | 34.50 | W/m×K | 703.00 | A Novel Instrument for the Measurement of the Thermal Conductivity of Molten Metals. Part II: Measurements | |
|--------|-------|-------|--------|--|--|
| tcondl | 35.00 | W/m×K | 730.20 | A Novel Instrument for the Measurement of the Thermal Conductivity of Molten Metals. Part II: Measurements | |
| tcondl | 27.30 | W/m×K | 523.10 | Repeatability and Refinement of a Transient Hot-wire Instrument for Measuring the Thermal Conductivity of High Temperature Melts | |
| tcondl | 28.00 | W/m×K | 549.20 | Repeatability and Refinement of a Transient Hot-wire Instrument for Measuring the Thermal Conductivity of High Temperature Melts | |
| tcondl | 28.60 | W/m×K | 580.00 | Repeatability and Refinement of a Transient Hot-wire Instrument for Measuring the Thermal Conductivity of High Temperature Melts | |
| tcondl | 29.10 | W/m×K | 603.70 | Repeatability and Refinement of a Transient Hot-wire Instrument for Measuring the Thermal Conductivity of High Temperature Melts | |

| tcondl | 30.00 | W/m×K | 634.90 | Repeatability and Refinement of a Transient Hot-wire Instrument for Measuring the Thermal Conductivity of High Temperature Melts | |
|--------|-------|-------|--------|--|--|
| tcondl | 30.60 | W/m×K | 657.00 | Repeatability and Refinement of a Transient Hot-wire Instrument for Measuring the Thermal Conductivity of High Temperature Melts | |
| tcondl | 31.40 | W/m×K | 683.80 | Repeatability and Refinement of a Transient Hot-wire Instrument for Measuring the Thermal Conductivity of High Temperature Melts | |
| tcondl | 31.90 | W/m×K | 707.60 | Repeatability and Refinement of a Transient Hot-wire Instrument for Measuring the Thermal Conductivity of High Temperature Melts | |
| tcondl | 32.50 | W/m×K | 733.20 | Repeatability and Refinement of a Transient Hot-wire Instrument for Measuring the Thermal Conductivity of High Temperature Melts | |

Sources

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Legend

and calculation:

| dvisc: | Dynamic viscosity |
|----------|--|
| ea: | Electron affinity |
| hf: | Enthalpy of formation at standard conditions |
| hfus: | Enthalpy of fusion at standard conditions |
| ie: | Ionization energy |
| sgb: | Molar entropy at standard conditions (1 bar) |
| speedsl: | Speed of sound in fluid |
| SS: | Solid phase molar entropy at standard conditions |
| tcondl: | Liquid thermal conductivity |
| tf: | Normal melting (fusion) point |

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