

LEAD

(Data in thousand metric tons, lead content, unless otherwise specified)

Domestic Production and Use: Lead was produced domestically by five lead mines in Missouri plus as a byproduct at two zinc mines in Alaska and two silver mines in Idaho. The value of recoverable lead from ore mined in 2025 was an estimated \$650 million, 8% less than that in 2024. Nearly all lead concentrate production has been exported since the last primary lead refinery closed in 2013. The value of the secondary lead produced in 2025 was \$2.4 billion, a 4% decrease from that in 2024. The lead-acid battery industry accounted for an estimated 67% of U.S. apparent consumption of lead during 2025. Lead-acid batteries were primarily used as starting-lighting-ignition (SLI) batteries for automobiles, as industrial-type batteries for standby power for computer and telecommunications networks, and for motive power.

Salient Statistics—United States:

| | <u>2021</u> | <u>2022</u> | <u>2023</u> | <u>2024</u> | <u>2025^e</u> |
|---|--------------------|--------------------|--------------------|--------------------|--------------------------------|
| Production: | | | | | |
| Mine, lead in concentrates | 294 | 273 | 270 | 304 | 280 |
| Mine, recoverable lead | 286 | 264 | 263 | 296 | 270 |
| Primary refinery | — | — | — | — | — |
| Secondary refinery, old scrap | 1,050 | 1,010 | 1,010 | 1,030 | 1,000 |
| Imports for consumption: | | | | | |
| Lead in concentrates | 1 | (¹) | (¹) | (¹) | (¹) |
| Refined metal, unwrought | 614 | 652 | 519 | 410 | 520 |
| Exports: | | | | | |
| Lead in concentrates | 262 | 255 | 246 | 260 | 220 |
| Refined metal, unwrought (gross weight) | 22 | 26 | 23 | 37 | 22 |
| Consumption, apparent ² | 1,640 | 1,630 | 1,500 | 1,410 | 1,500 |
| Price, average, North American, cents per pound ³ | 113.0 | 116.5 | 114.1 | 108.8 | 106 |
| Net import reliance ⁴ as a percentage of apparent consumption, refined metal | 36 | 38 | 33 | 27 | 33 |

Recycling: In 2025, an estimated 1 million tons of secondary lead was produced, an amount equivalent to 70% of apparent domestic consumption. Nearly all secondary lead was recovered from old scrap, mostly lead-acid batteries.

Import Sources (2021–24): Refined metal: Canada, 31%; Republic of Korea, 16%; Mexico, 15%; Australia, 13%; and other, 25%.

| <u>Tariff:</u> | <u>Item</u> | <u>Number</u> | <u>Normal Trade Relations</u> <u>12–31–25</u> |
|-----------------------|--|----------------------|--|
| | Lead ores and concentrates, lead content | 2607.00.0020 | 1.1¢/kg on lead content. |
| | Refined lead | 7801.10.0000 | 2.5% on the value of the lead content. |
| | Antimonial lead | 7801.91.0000 | 2.5% on the value of the lead content. |
| | Alloys of lead | 7801.99.9030 | 2.5% on the value of the lead content. |
| | Other unwrought lead | 7801.99.9050 | 2.5% on the value of the lead content. |

Depletion Allowance: 22% (domestic), 14% (foreign).

Government Stockpile: None.

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Events, Trends, and Issues: During the first 10 months of 2025, the average North American price for lead was 106 cents per pound, 3% less than the annual average price of 108.8 cents per pound in 2024. Global stocks of lead in LME-approved warehouses were 217,000 tons at the end of October, 10% less than those at yearend 2024.

In 2025, domestic mine production of recoverable lead decreased by 9% from that in 2024 owing to several lead-producing mines reducing production. Estimated U.S. apparent consumption of refined lead increased by 8% from that in 2024, and the net import reliance increased to 33% from 27%. In the first 8 months of 2025, 23 million spent SLI lead-acid batteries were exported, a 23% increase from 19 million batteries exported in the same period in 2024.

According to the International Lead and Zinc Study Group,⁵ global refined lead production in 2025 was forecast to increase slightly to 13.3 million tons and refined lead consumption to increase slightly to 13.25 million tons.

On November 7, 2025, the U.S. Final 2025 List of Critical Minerals was published in the Federal Register (90 FR 50494). The changes in the 2025 list from the prior list published in 2022 (87 FR 10381) were the addition of copper, lead, potash, rhenium, silicon, and silver, based on the U.S. Geological Survey updated methodology for the 2025 list. As required by the Energy Act, public comment and interagency input were requested in response to the draft U.S. list of critical minerals published in the Federal Register (90 FR 41591). Based on that input, boron, metallurgical coal, phosphate rock, and uranium were also added.

World Mine Production and Reserves: Significant revisions were made to the 2024 production for Bolivia and Mexico based on company and Government reports. Reserves for Australia were revised based on a Government report.

| | Mine production | | Reserves ⁶ |
|-----------------------|------------------|-------------------|-----------------------|
| | 2024 | 2025 ^e | |
| United States | 304 | 280 | 4,600 |
| Australia | ^e 481 | 480 | ⁷ 34,000 |
| Bolivia | 110 | 100 | 1,600 |
| China | 1,940 | 1,900 | 22,000 |
| India | ^e 226 | 220 | 1,900 |
| Iran | ^e 70 | 70 | 2,000 |
| Mexico | 240 | 200 | 5,600 |
| Peru | 291 | 290 | 5,000 |
| Russia | 260 | 260 | 8,900 |
| Sweden | 75 | 70 | 1,700 |
| Tajikistan | ^e 39 | 40 | NA |
| Turkey | ^e 66 | 70 | 1,600 |
| Other countries | 498 | 500 | 5,900 |
| World total (rounded) | 4,600 | 4,500 | 95,000 |

World Resources:⁶ Identified world lead resources total more than 2 billion tons. In recent years, significant lead resources have been identified in association with zinc and (or) silver or copper deposits in Australia, China, Ireland, Mexico, Peru, Portugal, Russia, and the United States (Alaska).

Substitutes: Substitution by plastics has reduced the use of lead in cable covering and cans. Tin has replaced lead in solder for potable water systems. The electronics industry has moved toward lead-free solders and flat-panel displays that do not require lead shielding. Steel and zinc are common substitutes for lead in wheel weights.

^eEstimated. NA Not available. — Zero.

¹Less than ½ unit.

²Defined as secondary refined production from old scrap + refined imports – refined exports.

³Source: S&P Global Platts Metals Week.

⁴Defined as refined imports – refined exports.

⁵Source: International Lead and Zinc Study Group, 2025, ILZSG session/forecasts: Lisbon, Portugal, International Lead and Zinc Study Group press release, October 13, [4] p.

⁶See Appendix C for resource and reserve definitions and information concerning data sources.

⁷For Australia, Joint Ore Reserves Committee-compliant or equivalent reserves were 10 million tons.