Non-Ferrous: Lead & Zinc

Lead

- **Description**
  - Lead is a common metal used in automotive, marine, and construction. It is identifiable by its malleability, density, and lack of sound upon dropping on the ground.

Lead - Level 1

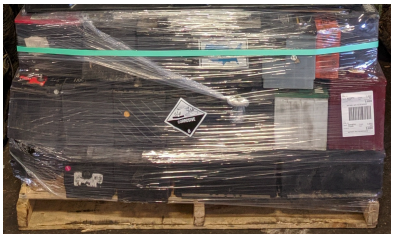
- Soft Lead [Racks]
  - **Description**
    - The most common type of soft lead found in a scrapyard comes from roofing applications. The easiest way to distinguish lead from other metals is to listen for a sound when dropped on the ground. Lead does not produce a ting like other metals and is also easily molded by hand.
  - **Upgrade potential**
    - Soft lead typically comes into a scrapyard with attachments or tar. Removing attachments is relatively easy, and it produces a more valuable product.
  - **ISRI definition**
    - **Racks** Scrap Lead - Soft
      - Shall consist of clean soft scrap lead, free of other materials such as drosses, battery plates, lead covered cable, hard lead, collapsible tubes, foil, type metals, aluminum, zinc, iron and brass fittings, dirty chemical lead and radioactive materials. Review packaging specifications and regulatory status pertaining to shipping with the buyer prior to sale.

Non-Ferrous: Lead & Zinc



- Lead Batteries [Rinks]
  - **Description**
    - Lead/Acid batteries or wet batteries are the most common type of battery found in vehicles, boats, and golf carts. Any scrapyard that accepts vehicles will need to remove batteries before sending the vehicle to be shredded as a charged battery can cause a fire, and lead mixed in with steel can ruin an entire batch of melted steel.
  - **Upgrade potential**
    - In some countries, lead/acid batteries cannot be exported as they are considered hazardous goods. Once the acid is properly drained, the batteries can be shipped as non-hazardous goods, increasing the value substantially.
  - **ISRI definition**
    - Scrap Wet Whole Intact Lead Batteries
      - Consisting of SLI (starting, lighting & ignition), automotive, truck, 8-D and commercial golf cart and marine-type batteries. Cases to be either plastic or rubber and to be complete. Non-lead (i.e., ni-cad, ni-fe, carbonaire, etc.) not acceptable. Other types i.e. aircraft (aluminum) gel-cel, lawnmower, etc., and partial, cracked or broken batteries or batteries without caps and the amount of liquid content and any variations to the specification subject to special agreement. Review packaging specifications and regulatory status pertaining to shipping with buyer prior to sale.

Non-Ferrous: Lead & Zinc

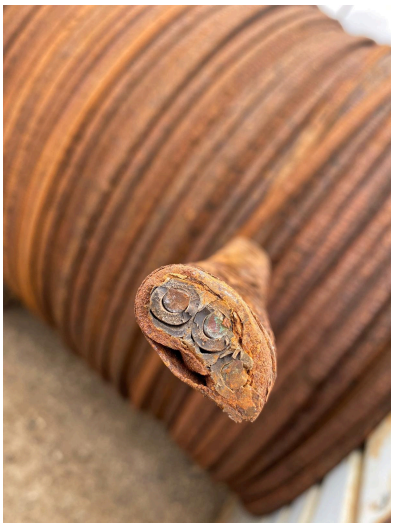

- Wheel Weights [Ropes]
  - **Description**
    - The most common method of balancing vehicle wheels is with the use of lead wheel weights. These weights are found on the inside of the rim. Due to new regulations, lead has been phased out in favor of steel and zinc wheel weights. It is very important to sample the composition of a wheel weight package as the lead percentage continues to decline.
  - **Upgrade potential**
    - Sorting the various types of metal (lead, zinc, and steel) within wheel weights will serve as an upgrade because the standard wheel weight package contains nearly 30% steel weights, the typical maximum Fe Weights allowable.
  - **ISRI definition**
    - **Wheel Weights**
      - To consist of lead tire balances with or without iron clips. Not to include scrap lead, lugs, or plates unless specifically agreed to. To be free of foreign material. Review packaging specifications and regulatory status pertaining to shipping with buyer prior to sale.



Non-Ferrous: Lead & Zinc

Lead - Level 2

- Reda Cable [Relay]
  - **Description**
    - Reda Cable [Relay] is lead covered copper cable used in oil exploration, meaning it powers inground (downhole) motors. There are several styles, but the composition is relatively the same. Several strands of #1 ICW are wrapped in lead and then wrapped in steel conduit. The copper & lead recovery varies so it is important to conduct a sample analysis to maximize value.
  - **Upgrade potential**
    - As with any ICW, stripping is always an option. With this material that would be recovering #1 Copper and clean Lead. The outside conduit in some cases might be 316 Stainless Steel or on rare occasions Monel so it is certainly worth visually inspecting every piece.
  - **ISRI Definition**
    - **Relay** Lead Covered Copper Cable
      - Free of armored covered cable and foreign material subject to negotiation between buyer and seller.



Non-Ferrous: Lead & Zinc

- Ballast Lead/Hard Lead [Radio]
    - **Description**
        - Ballast Lead can come in many different forms and sizes, ranging from lead ingots, lead balls, lead blocks, and boat keels, to name a few. Hard Lead is usually lead that has been alloyed with antimony and tin to increase hardness and mechanical strength and should always be tested with an analyzer to confirm its chemistry. Lead's high density and resistance to corrosions make it the ideal element to be used in ballast applications.
    - **Upgrade potential**
        - Sorting Ballast Lead/Hard Lead [Radio] is important as there may be Soft Lead [Racks] and/or other higher-value alloys. This material might be upgraded by cutting open a counter weight to reveal the ballast used inside.
    - **ISRI definition**
        - **Radio** Mixed Hard/Soft Scrap Lead
            - Shall consist of clean lead solids and lead shots, free of other materials, such as drosses, battery plates, lead covered cable, hard lead, collapsible tubes, type metals, aluminum, zinc, iron and brass fittings, dirty chemical lead and radioactive materials. Review packaging specifications and regulatory status pertaining to shipping with the buyer prior to sale.

- Range Lead
    - **Description**
        - Range Lead is made up of spent rounds from shooting ranges and military institutions. This grade is a mixture of lead and other non-ferrous metals depending on what the bullets were made out of, to begin with, often copper and or brass. It is vital to inspect this material for live rounds to avoid possible explosions.
    - **Upgrade potential**
        - Brass shells are often mixed within range lead, so it is important to sort this material to capture these upgrades.

Zinc

- **Description**
  - Zinc is not a very common metal as it is mainly used as a corrosion resistant additive in other metals. The zinc found in scrap yards will mainly be castings and sheets. It can easily be confused with cast aluminum so please make sure to look for any white spots from oxidation or test with an analyzer.

- Clean Zinc [Score]
  - **Description**
    - Clean Zinc [Score] is most commonly found in a shape due to the casting process. It will look very similar to cast aluminum so it is very important to confirm the source or make use of an analyzer.
  - **Upgrade potential**
    - As mentioned above, Clean Zinc [Score] looks similar to Cast Aluminum [Tense] so it is entirely possible to find cast aluminum as an upgrade mixed in with zinc castings.
  - **ISRI definition**
    - **Score** Old Scrap Zinc
      - Shall consist of clean dry scrap zinc, such as sheets, jar lids, clean unalloyed castings and anti-corrosion plates. Borings and turnings are not acceptable. Material must not be excessively corroded or oxidized. All foreign attachments and extraneous materials are deductible.

Non-Ferrous: Lead & Zinc

- Dirty [Irony] Zinc
  - **Description**
    - Zinc is often screwed or clamped onto other pieces of metal for corrosion resistance. When these are left attached, the material is then considered dirty or irony zinc.
  - **Upgrade potential**
    - Removing the steel attachments is one potential upgrade and another is the possibility of finding Cast Aluminum [Tense] mixed in with the other zinc pieces.

- Zinc Anodes
  - **Description**
    - Zinc Anodes are the most common form of zinc found in a scrap yard. While these can be considered dirty zinc due to the iron bar down the center, they should be kept separate due to their uniform recovery. Zinc anodes typically come from marine applications as they are used to prevent corrosion to other metals on boats.
  - **Upgrade potential**
    - The zinc can be removed by breaking it off from the iron bar which will result in clean zinc.

Non-Ferrous: Lead & Zinc

- Zinc Dross [Seal | Seam]
    - **Description**
        - Zinc Dross is produced during the galvanizing process at a galvanizing facility. Top Zinc Dross [Seal] is skimmed from the top of the tank and often contains impurities resulting in a lower price. Bottom Zinc Dross [Seam] is almost pure zinc as it rests at the bottom of the tank. The price gap is substantial so it is very important to visit the source and also make use of an analyzer.
    - **Upgrade potential**
        - As mentioned above an analyzer will help differentiate between top and bottom dross due to the Zinc percentage detected resulting in an upgrade.
    - **ISRI definition**
        - **Seal** Continuous Line Galvanizing Slab Zinc Top Dross
            - Shall consist of unsweated zinc dross removed from the top of a continuous line galvanizing bath, in slab form not weighing in excess of 100 pounds each, with a minimum zinc content of 90%. Heavier pieces acceptable upon mutual agreement between buyer and seller. Shall be free of skimmings. Broken pieces under 2” in diameter shall not exceed 10% of the weight of each shipment.
        - **Seam** Continuous Line Galvanizing Slab Zinc Bottom Dross
            - Shall consist of unsweated zinc dross removed from the bottom of a continuous line galvanizing bath, in slab form not weighing in excess of 100 pounds each, with a minimum zinc content of 92%. Heavier pieces acceptable upon mutual agreement between buyer and seller. Shall be free of skimmings. Broken pieces under 2” in diameter shall not exceed 10% of the weight of each shipment.

Non-Ferrous: Lead & Zinc