

## Guidance for Tier II Reporting of Lead Acid Batteries

Below is a summary the preferred method to report lead acid batteries. Lead acid batteries are considered a mixture containing sulfuric acid, an extremely hazardous substance (EHS), and other non-EHS hazardous chemicals such as lead, lead oxide and lead sulfate. Information on battery weight should be listed on the Safety Data Sheet (SDS).

Additionally EPA Information: [EPA lead acid batter reporting guidance](#)

### Do I need to report?

If you have lead acid batteries:

1. Aggregate the amount of sulfuric acid at the facility. If the amount is greater than 500 pounds, then it is reportable as an EHS.
2. Add the total weight of the lead acid batteries. If the amount is greater than 10,000 pounds, then it is reportable.

### How do I report?

**When only sulfuric acid needs to be reported** - reporting sulfuric acid when only the 500-pound threshold has been met in all mixture and pure forms at the facility:

1. Sulfuric acid can be listed as a separate chemical on the report from all aggregated forms at the facility **OR**
2. If all sulfuric acid is from lead acid batteries, then the batteries can be listed as the chemical with sulfuric acid listed as an EHS mixture component under the lead acid batteries.

**Sulfuric acid and lead acid battery need to be reported:** reporting sulfuric acid and lead acid batteries when both meet reporting thresholds (500 and 10,000 lbs, respectively):

1. If sulfuric acid is only in the batteries, the batteries can be reported with sulfuric acid as a component **OR**
2. If sulfuric acid is in the batteries and other aggregated sources, then it should be reported as a separate chemical on the report for all forms at the facility **and** lead acid batteries should be listed as the chemical and indicate that they contain the EHS sulfuric acid as a component of the battery mixture.

## Lead acid battery reporting examples

To determine the weight of the chemical components in a lead acid battery, multiply the chemical component percentage by the weight of the whole mixture in pounds. Using the information from the example SDS below for Examples 1 and 2.

### Safety Data Sheet Example for Lead Acid Battery

#### Composition

| Ingredients                 | CAS Number | % by Weight* |
|-----------------------------|------------|--------------|
| Lead and lead compounds     | 7439-92-1  | 76           |
| Sulfuric Acid (Electrolyte) | 7664-93-9  | 22           |
| Antimony                    | 7440-36-0  | 2            |

**\*Note:** If the SDS provides a range for the percent composition for the chemical components use the highest percentage value for calculations unless an average percentage value is given. For example, if the SDS lists the percent composition of sulfuric acid as a range of 20-50%, use 50%.

**Example 1.** The facility has 100 lead acid batteries that weigh 55 pounds each for a total weight of 5,500 pounds and no other forms of sulfuric acid. The SDS above was used for determining chemical amounts and what information is needed for Tier II reporting.

1) EHS component example of sulfuric acid:

a. Weight of Sulfuric Acid = 5,500 pounds x 22% = 1200 pounds.

**Report:** Exceeds the 500-pound threshold, report the 1,200 pounds of sulfuric acid in the Tier II Report.

2) Whole lead acid battery example of lead chemicals and antimony:

a. Weight of battery = 5,500 pounds.

**Report:** Does not meet or exceed 10,000 pounds, not reportable.

**Tier II Reporting:** Can report two ways: 1) report the sulfuric acid as an EHS chemical or 2) report the lead acid battery with sulfuric acid as an EHS component.

**Example 2.** The facility has 210 lead acid batteries that weigh 55 pounds each for a total weight of 11,500 pounds and stores 150 pounds of pure sulfuric acid. The SDS above was used for determining chemical amounts and what information is needed for Tier II reporting.

1) EHS component example of sulfuric acid:

a. Weight of Sulfuric Acid in batteries = 11,500 pounds x 22% = 2,530 pounds.

b. Weight of pure sulfuric acid = 150 pounds.

c. Total Weight of all sulfuric acid = 2,680 pounds.

**Report:** Exceeds the 500-pound threshold, report the 2,680 pounds of sulfuric acid in the Tier II Report.

2) Whole lead acid battery example of lead chemicals and antimony:

a. Weight of battery = 11,500 pounds.

**Report:** Exceeds the 10,000-pound threshold, report the 11,500 pounds of lead acid battery in the Tier II Report.

**Tier II Reporting:** Report the sulfuric acid as an EHS chemical and report lead acid battery with sulfuric acid as an EHS component.