

### Question 1

name three commercial uses for alum?

**Answer:**

1. Construction material: railing, rods, doors, building wire, sheathing, roofing.
2. Transportation (automobiles, aircraft, trucks, railway cars, marine vessels, bicycles, spacecraft, etc.) as sheet, tube, and castings.

Properties of aluminium that allow these uses (1 and 2): resistance to corrosion, high strength to weight ratio, it's easy to paint, form and connect to other materials.

3. Heat sinks for CPU's and graphic processors.

Properties of aluminium that allow this use: heavy thermal, corrosion, biofueling resistance (for aluminium alloys) and thermal conductivity.

4. Long-distance power lines.

Properties of aluminium that allow this use: high conductivity (being mixed with copper) and light weight.

5. Rolled sheet Products.

Properties of aluminium that allow this use: the ability to be rolled into super thin foil for food packaging or thicker sheets for cans.

### Question 2

which happens when 3M KOH solution is added to aluminum foil what gas is released?

**Answer**

Aluminium foil is made out of aluminium which reacts with alkali (KOH) producing complex salt and hydrogen. Aluminium foil is dissolved and hydrogen is released.

