

Mag One (MDD): Redefining Magnesium Production through Technology

[Equities Research](#) / Friday, 24 March 2017 12:29 (EST)

Regular readers will note that we've been focusing on the energy sector recently, particularly on companies that are trying to redefine their industries through technology. We're branching off into industrial materials today - specifically, **magnesium** - while keeping to the theme of technological innovation.

Many of you will have had your first encounter with magnesium in chemistry class, holding a flame to a strip of magnesium, causing it to burn with an intense white light. Others will have grown up with that blue bottle of milk of magnesia (magnesium oxide) that was the standard for gastric distress.

According to the [International Magnesium Association](#), magnesium and its alloys are the least dense of all commonly used structural materials - 33% lighter than aluminum and 75% lighter than steel. Magnesium alloys have a comparable strength to weight ratio to aluminum despite the lower density. Other advantages of the material include a high vibration damping capacity making them an ideal material choice for many high speed applications, and electromagnetic interference reduction. Magnesium is the third most abundant metallic element found in the earth's crust and is fully recyclable.

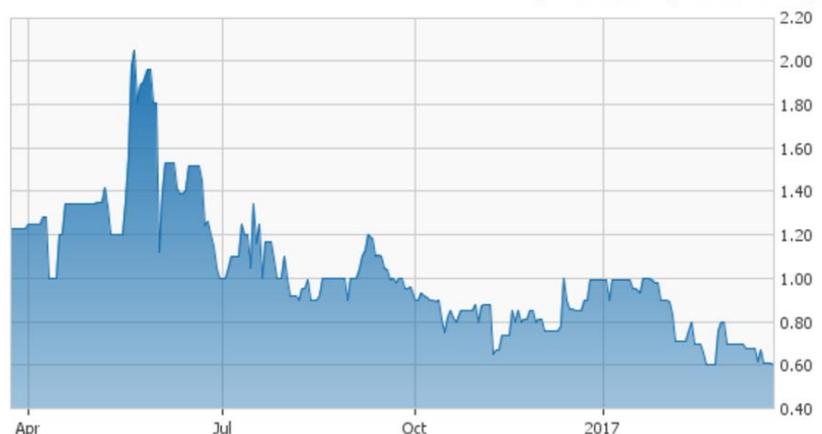
Mag One Products Inc. (MDD:CNX)

Profile

Mag One Products Inc is engaged in the research and development of technology and manufacturing facilities for the production of magnesium and magnesium compound.

\$ 0.60

\$ -0.01 (-1.64%)



Proprietary Process

[Mag One Products \(CNX\(same as CSE\): MDD; OTCQB: MGPRF; Frankfurt: 304\)](#) is a magnesium technology and production company - **not** a mining company. The company has developed a proprietary, patents-pending process for producing high-purity magnesium oxide (MgO), which can either be sold directly or converted to other valuable products such as magnesium hydroxide and magnesium metal. According to a [report from a team of independent consultants in July 2016](#), Mag One's manufacturing processes have the potential to produce greater than 98 weight percent pure MgO, as well as a saleable byproduct -

We note that the company historically has estimated this stockpile at **50 million metric tons**. Mag One issued a [press release in January 2017](#), however, stating that it was required to file a [43.101 report](#) to support this estimate. The company followed up with a [press release yesterday](#) in which it stated that it was retracting its estimate "until a compliant technical report is issued to the public." In this regard, the Company said it hired a geological engineer and Qualified Person per 43.101, on February 3, 2017, to review all pertinent information including onsite verification of the size of the stockpile, technical reports, historical reports, and related contracts. Once the report is issued and filed on SEDAR, key findings will be included within the Company's website, fact sheets, investor presentations and other marketing material.

Other Projects

Complementing the production of magnesium and its byproducts, Mag One also is engaged in:

- [Magnesium Wallboard Panels](#). Mag One has a joint venture with MagBoard, a private California company, to assemble magnesium-based wallboard panels, which the company claims to be fire, rot and termite-proof with structural soundness and a lower cost than conventional gypsum board or plywood panels. The North American wallboard market exceeds 30 billion square feet annually.
- [Magnesium Fuel Cells](#). The company's MagPower subsidiary is currently developing batteries that are powered by magnesium, salt water and air. Magnesium has long been researched as a safer, more energy-dense alternative to lithium in batteries.

Auto Industry

The auto industry has used magnesium for 100 years and has long desired to have it be a more prominent component in manufacturing. In 2006, the US Automotive Materials Partnership (USAMP), established by [Chrysler \(now Fiat Chrysler, NYSE: FCAU\)](#), [Ford \(NYSE: F\)](#) and [General Motors \(NYSE: GM\)](#) in 1993, proposed that by the year 2020, [magnesium use should be increased from the then average of 10 to 12 pounds per car to 350 pounds](#), replacing 630 pounds of steel and aluminum.

A [Wall Street Journal article 20 years after the USAMP report](#), however, stated that the magnesium percentage in cars was still at 10%. The major hurdle appears to be cost. A kilogram of magnesium costs auto makers \$3.75, while aluminum costs \$1.54 and steel costs between \$0.40 and \$0.98 per kilogram.

If Mag One is successful in commercializing its technology and reducing the effective cost of magnesium production, auto makers would have far less reason to balk at using more of it. Outside of oil companies, who would complain about lighter, more fuel efficient vehicles?

Chairman and CEO Nelson Skalbania

Nelson Skalbania co-founded Mag One in 2015, the latest venture in a long, colorful career in across a spectrum of industries including technology, mining, manufacturing and oil field services. A consulting structural engineer by training with a bachelor's from the University of

British Columbia and a Masters from CalTech, he formed and ran the engineering firm McKenzie Snowball & Skalbania for almost twenty years before expanding into real estate.

Mr. Skalbania is well known in sports circles for having owned 10 different professional teams. He famously was the first to sign 17-year-old Wayne Gretzky when he owned the Indianapolis Racers of the old World Hockey Association.

We'll be keeping close watch on Mag One, as it faces the primary challenge of raising sufficient capital to fund its development and commercialization efforts. In its [investor presentation dated March 1, 2017](#), the company discloses use of proceeds for up to C\$50 million in equity capital, the first \$3 million of which would be earmarked for the magnesium wallboard assembly plant.

Please email us at content@equities.com if you are a Public Company and would like to see our Testimonials.

DISCLOSURE: *The views and opinions expressed in this article are those of the authors, and do not represent the views of [equities.com](http://www.equities.com). Readers should not consider statements made by the author as formal recommendations and should consult their financial advisor before making any investment decisions. To read our full disclosure, please go to: <http://www.equities.com/disclaimer>*