TOWARDS A GREENER AND MORE SUSTAINABLE FUTURE WITH VANADIUM

Vanadium is a **NATURALLY OCCURING, CRITICAL RAW MATERIAL** which contributes to global decarbonisation and, through its versitile and safe applications, supports a green and sustainable future.

CONTAINED, CONTROLLED, AND RECYCLABLE

element with essential industrial uses

Vanadium pentoxide (V_2O_5), in the form of powder or fused flakes is the **MOST IMPORTANT COMPOUND OF VANADIUM** used in industrial applications including:

- High-strength steel production
- Energy storage
- Chemical catalysts
- Vanadium chemicals
- Industrial exhaust gas treatment agent
- Anti-corrosion agent
- Ceramic pigments
- Lightweight aerospace alloys

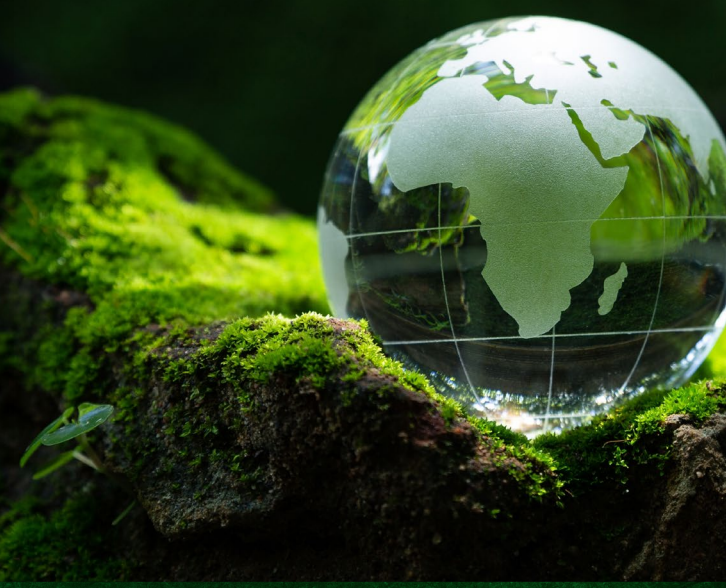
VANITEC
TRANSFORMING POSSIBILITIES

VANADIUM: A SUSTAINABLE, CARBON REDUCING, CRITICAL MINERAL

VANADIUM'S ROLE IN GLOBAL DECARBONISATION

Vanadium plays a crucial role in global decarbonisation by reducing carbon emissions in the energy, transportation and steel sectors.

- Approximately 180 million metric tons of CO_2 emissions are saved annually due to the use of vanadium microalloyed reinforcement bars (rebars) in construction.
- Vanadium flow batteries are expected to save 2.13 million metric tons of CO_2 over their 20-year lifetime
- Vanadium-microalloyed steels have a carbon footprint 5x less than aluminium and 10x less than carbon fibre composites.
- Vanadium-microalloyed steel can be recycled fully and indefinitely without loss of quality.



LOW HUMAN AND ENVIRONMENTAL IMPACT

Exposure to vanadium compounds in the general population is very limited. Where used in industrial applications, occupational exposure levels are strictly controlled.

SUSTAINABLE AND RESPONSIBLE RESOURCE MANAGEMENT

Vanadium can be sustainably recycled from vanadium-containing products and vanadium-containing steel and steel scrap. It can also be recovered from electrolytes used in vanadium flow batteries. This reduces the need for new vanadium production.

Vanadium has been classified as a critical mineral by several world regions and countries, including the European Union, the United States, Canada, Australia, Japan, India, Brazil, South Africa, and the United Kingdom.

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