



# Trace Mineral Complex CWS

MINERAL SUPPLEMENT



## Trace Mineral Combination

- Supports thyroid function<sup>1\*</sup>
- Protects against oxidative stress<sup>1\*</sup>
- Contains the essential micro nutrients: iodine, selenium, manganese, chromium and molybdenum
- Also contains boron

## Convenient cold water soluble (CWS) liquid format

- Can be dropped directly into the mouth (3 drops per serving) or added to beverages

## Supplement Facts

Serving Size 3 Drops (0.2 ml) / Servings per Container 75

Each Drop Contains		% DV
Iodine (potassium iodide)	50 mcg	33%
Selenium (sodium selenate)	50 mcg	71%
Manganese (manganese ascorbate)	0.05 mg	3%
Chromium (chromium polynicotinate)	50 mcg	42%
Molybdenum (sodium molybdate)	50 mcg	67%
Boron (sodium borate)	50 mcg	*

\* Daily Value (DV) not established

Other ingredients: Purified water, citric acid

**Recommended Adult Dose:** Take three drops daily with a meal or as recommended by your healthcare practitioner. If preferred, Trace Mineral Complex CWS can be mixed with water or juice.

Product Size: 0.5 fl oz

Product Code: 01182



## Scientific Rationale:

**Iodine** is an essential component of the thyroid hormones thyroxine (T4) and triiodothyronine (T3). T4 and T3 regulate a variety of key metabolic processes, including protein synthesis and enzymatic activity.<sup>1</sup>

**Selenium** is needed to form selenoprotein enzymes that protect cells against oxidative stress and regulate thyroid function, including glutathione peroxidases (GPxs), thioredoxin reductases (TRxs), iodothyronine deiodinases (DIs), and various antioxidant selenoproteins such as selenoprotein P (SePP).<sup>1,2</sup> The thyroid has the highest concentration of selenium of any organ - GPx enzymes expressed in the thyroid protect against lipid peroxidation by detoxifying accumulated hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), and DI enzymes are needed to catalyze the conversion of T4 to T3.<sup>2</sup>

In a 12-week long parallel clinical trial conducted on 119 healthy participants with low serum selenium levels (< 110 ng/ml), supplementation with 50 µg

of selenium significantly increased gene expression of the antioxidant enzyme selenoprotein W (SEPW1), compared to participants in the placebo group.<sup>3</sup>

**Molybdenum** is an essential trace mineral and the active component of molybdenum cofactor (Moco). Moco is a cofactor for enzymes involved in energy production and the catabolism of purines and amino acids, such as sulfite oxidase, xanthine oxidase, and aldehyde oxidase.<sup>4</sup> Based on a depletion study conducted on healthy men, purified supplemental molybdenum appears to be approximately 16% more bioavailable than molybdenum obtained from food sources.<sup>5</sup>

**Chromium** is involved in potentiating insulin-dependent glucose uptake.<sup>1</sup>

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## REFERENCES

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3. Goldson AJ et al. Effects of Selenium Supplementation on Selenoprotein Gene Expression: A Randomised Controlled Trial. PLoS ONE. 2011; 6(3): e14771

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\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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