

Updated: 25-Feb-2022

## Zinc Oxide, Micronized

### Specification Sheet

**Description:** Zinc oxide, from natural zinc ore, super-finely micronized. Particle size: <100 nanometer (0.1 micrometer), mean particle size is around 85 nm (depending on the method of measurement the mean particle size has also been found to be in the range of 30-55nm). Able to reflect & absorb UVA and UVB light. Fine white transparent powder with minimal whitening, faint odor. Dispersible in water & oils.

**CAS:** 1314-13-2

**INCI Name:** Zinc oxide

**Composition:** Zinc oxide

**Purity Grade:** No purity grade applicable

**Appearance:** Fine white transparent powder with minimal whitening, faint odor

**Benefits:**

- Reflects sunlight (UVB rays)
- Has soothing effects and can be used for skin irritations
- Has some antimicrobial properties
- Transparent look with minimal whitening effect

**Use:** Add preferentially to water phase, usually combined with organic sunscreens, typical use level 3-6% when combined with organic sunscreens, use level when used alone 3-20%. For external use only.

**Applications:** Sun care & after-sun products, soothing skin care products, mineral makeup.

**Solubility:** Insoluble but dispersible in water and oils

**Preservation:** Preservative-free

**Storage:** Store light-protected at a cool and dry place

**Country of Origin:** USA

**Raw material source:** Metallic zinc

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**Manufacture:** Zinc oxide is produced from metallic zinc which is melted in a graphite crucible and vaporized at high temperatures (around 1000 °C). Zinc vapor reacts then with the oxygen in the air to give zinc oxide. The preparation of micronized (or nano-sized) zinc oxide is then carried out by the precipitation method where zinc salt solutions are reacted with alkali solutions.

**Animal Testing:** Not animal tested

**GMO:** GMO-free (does not contain plant-derived components)

**Vegan:** Does not contain animal-derived components

**HS Code:** 2817000000

**Regulatory Information:** Sunscreens are registered as API (Active Pharmaceutical Ingredient) or OTC-drug with the FDA. This means that, if you want to sell products containing a sunscreen, your facility must be registered with the FDA and operate under cGMP guidelines.