

Hi,

I have so many questions! I have been reading about iron oxides for cosmetic products and since I prefer organic/natural products, I am now turning to you to hopefully get some answers to my questions.

My questions specifically concern iron oxides (CI 77491, CI 77492, CI 77499) but also natural earth colors such as ochre, umber and terra.

Since these questions feel so important to me as a conscious consumer, I would really appreciate it if you could tell me who I can turn to if you cannot answer my questions.

My questions about iron oxides:

- I have read that iron oxides in nature are often contaminated with heavy metals (such as lead or arsenic). How are iron oxides (approved by COSMOS) purified from heavy metals - are chemicals used in the purification of heavy metals? If so, which chemicals?
- I have read that upcycling from other industries (e.g. the steel industry) has gained a growing focus when it comes to the production of iron oxides. Is this type of iron oxide production approved by COSMOS?
- Does COSMOS allow synthetic iron oxides in skin care products? If so, how are these synthetic iron oxides manufactured and from what?
- How can I as a consumer tell the difference between synthetic and natural iron oxides in the INCI list?

Which of the four production processes (for iron oxides) below is approved by COSMOS:

- Laux process
- Penniman process
- Precipitation process
- Calcination process
- All-natural extraction: Mining of iron ore, crushing and grinding, removal of impurities by magnetic separation or flotation, drying and grinding to specific particle size distributions.

My questions about natural earth colors:

- Does COSMOS approve earth colors such as ochre, umber and terra in skin and hair care products?
- How are these natural earth colors (ochre, umber and terra) extracted in order to be approved by COSMOS?
- How are different colors produced from natural earth colors? By heating (calcination) alone or in another way, for example with the help of chemicals?

Last question:

- How does COSMOS view mining related to the extraction of iron oxides and extraction of natural earth colors such as ochre, umber and terra? Is there any difference in the extraction process between iron oxides and natural earth colors?

Kind regards

Carina Lagerstedt Nilsson