

Report on recycled content
(Type II environmental labelling)

This report is on the recycled content of tungsten in Tungsten trioxide (WO₃-5) produced at JAPAN NEW METALS CO., LTD. Akita Plant in FY2023. The environmental claim in this report corresponds to the self-declared environmental claims (Type II environmental labelling) defined in ISO 14021.

I. Environmental claims

Claimed Product : Tungsten trioxide (WO₃-5)

Environmental claim : Recycled content of tungsten in Tungsten trioxide (WO₃-5) 100%

Symbol :

(Product Photo)



✱Recycled content of tungsten in Tungsten trioxide (WO₃-5)

II. Claimant

Claimant : JAPAN NEW METALS CO., LTD.

Department in charge : Quality Assurance Div.

Product Manufacturer : JAPAN NEW METALS CO., LTD. Akita Plant

III. Explanatory statements

1. The recycled content of each product cannot be calculated because raw materials for tungsten are temporarily stored or retained during the subsequent process. Therefore, this claim is for tungsten in 222.53 tons of Tungsten trioxide (WO₃-5), produced in one year from April 1, 2023, to March 31, 2024, at JAPAN NEW METALS CO., LTD. Akita Plant.

✱Reference on Tungsten smelting :

https://www.jstage.jst.go.jp/article/journalofmmij/123/12/123_12_707/_pdf/-char/ja

2. The use of recycled materials in the production of Tungsten trioxide (WO₃-5) reduces the following environmental impacts.
 - Mineral Resource Mining : Reducing the mining of natural resources through recycling reduces the amount of mine waste and eliminates loss of biodiversity by land use changes.
 - Water consumption : The flotation process to concentrate tungsten in ore uses a large amount of water. The use of recycled materials eliminates this process and reduces water consumption.

- Waste volume : Recycling reduces the amount of waste and environmental impacts associated with waste disposal and contributes to extending the life of the final disposal site.
 - Greenhouse gas emissions : Overall, reduced energy consumption on stages of raw material acquisition (ore mining, beneficiation (e.g., crushing and flotation beneficiation), and transportation) reduces greenhouse gas emissions. However, it should be noted that fossil fuels and energy are also consumed in the pretreatment of recycled materials.
3. Recycled content of tungsten in Tungsten trioxide (WO_3 -5) was calculated as shown below.
- $$X (\%) = A/P \times 100$$
- X is the recycled content, expressed as a percentage;
A is the mass of tungsten in recycled material;
P is the mass of tungsten in product.
4. Verification by SGS Japan Inc. dated November 30, 2024, confirmed that this environmental claim meets the requirements specified in ISO 14021.