

Material Safety Data Sheet

Tungsten (VI) Oxide WO₃

1. Chemical Product and Manufacturer identification

Product name: Tungsten (VI) Oxide

Chemical formula: WO₃

Synonyms: Tungsten trioxide, tungsten anhydride, tungstic oxide, tungsten oxide

Company Identification:

JSC "Hydrometallurg"

Golovko Str. 105, Nalchik

Republic of Kabardino-Balkaria,

360000 Russian Federation

For information, call: +7 8662 42 3800

2. Composition & information on ingredients

CAS number	Chemical Name	Percent	EINECS/ELINCS
1314-35-8	Tungsten oxide	100.0	215-231-4

Hazard Symbols: None listed.

Risk Phrases: None listed.

3. Hazards identification

EMERGENCY OVERVIEW

May cause eye and skin irritation. May cause respiratory and digestive tract irritation. May be harmful if swallowed.

Target Organs: None.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.

Inhalation: May cause respiratory tract irritation.

Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause lung damage.

4. First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically

Antidote: None reported.

5. Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water fog, dry chemical, carbon dioxide, or regular foam.

6. Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section.

Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

7. Handling and Storage

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Minimize dust generation and accumulation. Keep container tightly closed.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

8. Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Tungstic oxide	none listed	none listed	none listed

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

9. Physical and Chemical Properties

Physical State: Solid powder

Appearance: yellow

Odor: odorless

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not applicable.

Viscosity: Not available.

Boiling Point: Not applicable.

Freezing/Melting Point: 1473 deg °C

Autoignition Temperature: None Reported

Flash Point: None Reported

Decomposition Temperature: Not available.

NFPA Rating: (estimated) Health: 1; Flammability: 0; Reactivity: 0

Explosion Limit, Lower: None Reported
Explosion Limit, Upper: None Reported
Solubility: Insoluble in water
Specific Gravity/Density: 7.160
Molecular Weight: 231.86

10. Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, dust generation.
Incompatibilities with Other Materials: Chlorine, Chlorine trifluoride, Lithium.
Hazardous Decomposition Products: None.
Hazardous Polymerization: Has not been reported.

11. Toxicological Information

Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: No information available.
Other Studies: No data available.

12. Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: No information found.
Physical: No information found.
Other: No information available.

13. Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.
RCRA U-Series: None listed.

14. Transport Information

Shipping Name: tungsten trioxide
UN Number: none
Hazard Class: none
Packing Group: none

15. Regulatory Information

US FEDERAL

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases: Not available

Safety Phrases: Not available

16. Additional Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.