SAFETY DATA SHEET (MSDS) — FERRO TUNGSTEN (FeW)

Document No.	ATB-SDS-FEALLOY-FEW-2026-001
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Companion Document	Technical Data Sheet (TDS) ATB-TDS-FEALLOY-FEW-2026-001

SECTION 1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 Product Identifier

Product Name	Ferro Tungsten
Abbreviation	FeW
Grades Covered	FeW 80
Product Type	Alloy (special mixture)

1.2 Relevant Identified Uses and Uses Advised Against

Identified Uses	Industrial use only: high-speed tool steels; heat-resistant alloys; hardfacing and welding consumables.
Uses Advised Against	Consumer use; any use other than the identified industrial uses.

1.3 Details of the Supplier

Company	ATABAŞ GLOBAL DIŞ TİCARET ANONİM ŞİRKETİ
Address	Huzur Mahallesi, Azerbaycan Caddesi, Skyland İstanbul 4 B Blok, 27. Kat, Daire 389-390-391, Sarıyer, İstanbul, Türkiye
Telephone	+90 212 801 64 60
E-mail	ceo@atabas.com.tr
Website	www.atabas.com.tr

1.4 Emergency Telephone Number

Company (office hours)	+90 212 801 64 60 (Monday – Friday, 09:00 – 18:00 TRT)
National Poison Information Centre (Türkiye)	UZEM 114 (24 hours)

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the Mixture

Massive (Lump) Form	Not classified as hazardous under GHS / CLP criteria.
Dust / Fines (where generated)	Not classified; may cause mechanical irritation of the respiratory tract and eyes.

2.2 Label Elements

No hazard pictogram, signal word or hazard statement is required for the product as supplied.

2.3 Other Hazards

- Moist or wet material introduced into molten metal or slag can cause violent steam explosions and ejection of molten metal.

- Fumes generated during melting, cutting or welding may contain metal oxides.
- Fine dust may form explosive mixtures with air.
- PBT / vPvB assessment: not applicable to inorganic alloys.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

The product is an alloy (special mixture) of the elements listed below. Concentration ranges cover all grades listed in Section 1. Phosphorus, sulphur and other residual elements are present at trace levels as stated in the Technical Data Sheet.

Component	CAS No.	Content (% w/w)
Tungsten	7440-33-7	75 – 85
Iron	7439-89-6	Balance

SECTION 4. FIRST-AID MEASURES

4.1 Description of First-Aid Measures

Inhalation	Remove the person to fresh air and keep at rest. If breathing is difficult, give oxygen by trained personnel. Obtain medical attention.
Skin Contact	Remove contaminated clothing. Wash skin with soap and water. For burns from hot material, cool with clean water and obtain medical attention.
Eye Contact	Rinse immediately with plenty of water for at least 15 minutes, holding eyelids open. Do not rub. Obtain medical attention if irritation persists.
Ingestion	Rinse mouth with water. Do not induce vomiting. Obtain medical attention if symptoms develop.

4.2 Most Important Symptoms and Effects

- Dust: mechanical irritation of the eyes and respiratory tract.
- Metal oxide fumes: metal fume fever (flu-like symptoms, fever, chills), which may appear several hours after exposure.

4.3 Immediate Medical Attention

No specific antidote. Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Massive material is not combustible. For burning fines or dust: dry sand, dry graphite powder, Class D metal-fire extinguishing powder, dry dolomite or dry magnesium oxide.
Unsuitable Extinguishing Media	Water, foam and carbon dioxide on burning metal fines; water jet on hot or molten material.
Specific Hazards	metal oxide fumes in a fire; dust explosion of fines.
Advice for Fire-Fighters	Wear self-contained breathing apparatus and full protective clothing. Avoid raising dust. Keep unaffected material dry.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid dust formation and inhalation; wear the personal protective equipment listed in Section 8. Ventilate enclosed areas before entry.
Environmental Precautions	Prevent entry into drains, sewers and watercourses.
Clean-Up Methods	Collect mechanically (shovel, vacuum with suitable filter) into dry, closed and labelled containers for reuse or disposal.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

- Minimise dust generation; use local exhaust ventilation at crushing, screening and transfer points.
- Ensure material added to molten metal is dry; preheat additions where practicable.
- Keep fines and dust away from ignition sources; earth equipment handling powders.
- Do not eat, drink or smoke in work areas; wash hands after handling.

7.2 Conditions for Safe Storage

- Store in dry, covered and well-ventilated areas, protected from rain, condensation and standing water.
- Store away from acids, alkalis and oxidising agents.

7.3 Specific End Uses

Metallurgical use as described in Section 1.2.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Occupational Exposure Limits (8-hour TWA)

National occupational exposure limits (in Türkiye: Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik) prevail where they differ from the reference values below.

Substance	EU IOELV / BOELV	ACGIH TLV
Iron oxide (as Fe)	—	5 mg/m³ respirable
Particles not otherwise specified	—	10 mg/m³ inhalable; 3 mg/m³ respirable

8.2 Exposure Controls

Engineering Controls	Local exhaust ventilation and dust extraction at handling points; general ventilation of storage areas and enclosed spaces.
Eye Protection	Safety glasses with side shields (EN 166); face shield near molten metal.
Hand Protection	Mechanical-resistance work gloves (EN 388); heat-resistant gloves (EN 407) near hot material.
Respiratory Protection	FFP2 / FFP3 particle filter respirator (EN 149) where dust is generated.
Skin and Body Protection	Work clothing covering arms and legs, safety footwear (EN ISO 20345); aluminised or flame-retardant clothing near molten metal.
Environmental Exposure Controls	Prevent release of dust to the environment; use filters on extraction systems.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Metallic grey, very dense lumps
Odour	Odourless
Indicative Density (g/cm³)	14.0 – 15.5
Indicative Melting Range (°C)	2,400 – 2,700
pH	Not applicable
Flash Point	Not applicable
Flammability	Non-flammable in massive form
Explosive Properties	Fine dust may form explosive mixtures with air
Oxidising Properties	None
Vapour Pressure	Not applicable
Solubility in Water	Insoluble

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Not reactive under normal conditions of storage and use; reacts with strong acids.
Chemical Stability	Stable under dry storage conditions.
Possibility of Hazardous Reactions	Violent steam explosion if wet material contacts molten metal.
Conditions to Avoid	Moisture, water, dust generation, ignition sources near fines.
Incompatible Materials	Acids, alkalis, strong oxidising agents, halogens.
Hazardous Decomposition Products	None under dry conditions. Metal oxide fumes at high temperature; hydrogen with acids.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity	Massive form: no acute toxicity expected.
Skin Corrosion / Irritation	Not classified; dust may cause mechanical irritation.
Serious Eye Damage / Irritation	Not classified; dust may cause mechanical irritation.
Respiratory or Skin Sensitisation	Not classified.
Germ Cell Mutagenicity	Not classified.
Carcinogenicity	Alloy not classified.
Reproductive Toxicity	Not classified.
STOT – Single Exposure	Dust may cause respiratory tract irritation; metal fume fever from fumes.
STOT – Repeated Exposure	Not classified for the alloy.
Aspiration Hazard	Not applicable.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity	The massive alloy is insoluble with low bioavailability. Dissolved metal ions released from fines over time may be harmful to aquatic organisms at elevated concentrations.
Persistence and Degradability	Not applicable to inorganic alloys.
Bioaccumulative Potential	Not expected for the massive form.
Mobility in Soil	Low mobility of the massive form.
PBT / vPvB Assessment	Not applicable.
Other Adverse Effects	Avoid release of dust and fines to the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

- Recycling into metallurgical processes is the preferred route for off-specification material, fines and residues.
- Disposal shall be carried out by licensed operators in accordance with local regulations (in Türkiye: Atık Yönetimi Yönetmeliği; in the EU: Directive 2008/98/EC).
- Suggested European Waste Catalogue codes: 16 03 04 (inorganic off-specification material); 15 01 02 (plastic packaging); 15 01 04 (metallic packaging).

SECTION 14. TRANSPORT INFORMATION

UN Number	Not regulated
UN Proper Shipping Name	Not applicable
Transport Hazard Class (Subsidiary)	Not applicable
Packing Group	Not applicable
Modes Covered	IMDG Code (sea), ADR (road), RID (rail), ICAO-TI / IATA DGR (air)
Solid Bulk Carriage (IMSBC Code)	Normally carried packaged
Environmental Hazards	Not classified as marine pollutant
Special Precautions	Keep dry; protect from rain and seawater ingress. For bulk carriage, the shipper shall provide the cargo declaration and documentation required by the IMSBC Code.
MARPOL Annex II	Not applicable

SECTION 15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations

- This MSDS has been prepared with reference to the UN GHS (Rev.10), Regulation (EC) No 1907/2006 (REACH) Annex II as amended by Regulation (EU) 2020/878, Regulation (EC) No 1272/2008 (CLP), the Turkish KKDİK Regulation and the Turkish SEA Regulation.
- Registration obligations under REACH, KKDİK or similar chemical regimes, where applicable, rest with the importer of record in the relevant jurisdiction.
- Occupational exposure limits: Directives 2000/39/EC, 2006/15/EC, (EU) 2017/164 and (EU) 2017/2398, and national legislation.
- Transport: IMDG Code, IMSBC Code, ADR, RID and ICAO-TI / IATA DGR.

15.2 Chemical Safety Assessment

A chemical safety assessment has not been carried out by the supplier for this alloy.

15.3 Sanctions and Trade Compliance

ATABAŞ GLOBAL DIŞ TİCARET ANONİM ŞİRKETİ conducts its business in full compliance with the economic and trade sanctions regimes administered by the United States (OFAC), the European Union, the United Kingdom (OFSI) and the United Nations Security Council. ATABAŞ does not work with sanctioned countries, sanctioned companies, sanctioned individuals or sanctioned vessels, and does not supply, source, finance or transport goods in breach of these regimes.

All counterparties are subject to Know-Your-Customer and sanctions screening before contract signature and throughout performance. ATABAŞ reserves the right to suspend or terminate any transaction which may expose it to sanctions risk.

SECTION 16. OTHER INFORMATION

16.1 Revision Information

Rev.00, 26 October 2026: first issue.

16.2 Abbreviations

Abbreviation	Meaning
ACGIH TLV	American Conference of Governmental Industrial Hygienists Threshold Limit Value
BOELV / IOELV	Binding / Indicative Occupational Exposure Limit Value (EU)
CLP	Classification, Labelling and Packaging Regulation (EC) No 1272/2008
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IMSBC	International Maritime Solid Bulk Cargoes Code
KKDİK / SEA	Turkish chemical registration regulation / Turkish classification, labelling and packaging regulation
MHB	Materials Hazardous only in Bulk
STEL / TWA	Short-Term Exposure Limit / Time-Weighted Average
STOT RE	Specific Target Organ Toxicity – Repeated Exposure

16.3 Disclaimer

The information in this Safety Data Sheet is given in good faith and relates only to the product described. It is intended to support safe handling, storage, transport and use and does not constitute a specification or a warranty of any particular property. Users are responsible for complying with all applicable laws and for assessing the suitability of the product and of these precautions for their own operations.

Prepared By	Technical & Quality Department, ATABAŞ GLOBAL DIŞ TİCARET ANONİM ŞİRKETİ
Approved By	Hakan ATABAŞ, Founder & CEO
Date	26 October 2026
Signature & Company Stamp	