

1. NAMNET PÅ ÄMNET/BEREDNINGEN OCH BOLAGET/FÖRETAGET

Produktnamn:	ERTi-2
Användning/produkt:	svetsning, mig och tig
Artikelnummer:	T2xx / T2xxS
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2. FARLIGA EGENSKAPER

Carcinogenicity:	IARC, NTP, and OSHA do not list titanium alloy as a carcinogen. Chromium metal contained in some titanium alloys is classified as carcinogenic by IARC. Hexavalent chromium though not present in the alloy may be formed during welding or other thermal processes.
Routes of Entry/Exposure:	Titanium alloys in their usual solid form and under normal conditions do not present an inhalation, ingestion, or contact health hazard. Inhalation may occur if dust or fumes are generated. Skin absorption is not likely to occur, but irritation may occur when in contact with skin. Ingestion is not likely to occur.
Target Organs:	Lungs, eyes and skin.
Short-Term (Acute) Effects of Overexposure:	
Eyes:	Dusts or fumes can cause irritation with burning and tearing.
Inhalation:	Dusts or fumes can cause irritation and dryness of the nose and throat, coughing, bronchitis, pneumonia, chest pain, and pulmonary edema.
Skin:	Dusts or fumes can cause irritation with itching. Dermatitis may occur.
Ingestion:	Diarrhea, black stool, and cramping may occur.
Long-Term (Chronic) Effects of Overexposure:	No significant adverse health effects found in literature search specific to titanium alloys. Chronic exposure to certain metals in titanium alloys may cause non-progressive pulmonary fibrosis or chronic bronchitis when overexposed to elevated dust or fume concentrations. Other symptoms include shortness of breath, cough, chest tightness, and wheezing without impairment. Dermatitis and allergic sensitization have been reported.
Conditions Aggravated By Exposure:	Persons with sensitive skin or allergies to metals may be aggravated by exposure. Persons with respiratory problems may also be aggravated by exposure.

Also See TOXICOLOGICAL INFORMATION

3. SAMMANSÄTTNING/INFORMATION OM BESTÅNDSDELAR

ämnen	CAS-nr	halt %	symbol	klassificering
Copper	7440-50-8	<0,03		
Iron	7439-89-6	<0,16		
Titanium	7440-32-6	rest		

4. ÅTGÄRDER VID FÖRSTA HJÄLPEN

Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids apart to ensure flushing of entire eye surface. Seek medical attention after flushing eyes with water.
Inhalation:	Get person out of contaminated area to fresh air. If breathing has stopped, give artificial respiration and seek medical attention immediately.
Skin:	Wash contaminated areas with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Seek medical attention if any irritation or redness occurs.
Ingestion:	Seek medical attention immediately. Never give anything by mouth to an unconscious person. Get appropriate in-plant, paramedic, or community medical support after first aid is given.
Note to Physicians:	Treat Symptomatically.

5. BRANDBEKÄMPNINGÅTGÄRDER

Extinguishing Media:	Do Not Use Water or Carbon Dioxide Extinguishers! Dry sodium chloride is most effective for containing particulate fires. Flux (KCl, MgCl ₂ , CaF ₂) is effective in reducing the oxygen supply of the fire. See NFPA Code No. 481 for more information.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus with full facepiece operated in positive pressure mode and full turn-out gear.
Unusual Fire and Explosion Hazards:	No fire or explosion hazard with solid metal alloys. A severe fire hazard may exist when fine turnings or chips are produced and during disposal of scrap containing chips or fines. Dry titanium alloy powder under 48 mesh (NFPA 481, Appendix B) can be ignited by a match or small spark. Toxic metal fumes of titanium, aluminum, vanadium, iron, tin, zirconium, molybdenum, and chromium may be emitted.

6. ÅTGÄRDER VID OAVSIKTLIGA UTSLÄPP

Should spills of dust occur, use vacuum cleaner rated to clean up explosive dust and equipped with High Efficiency Particulate (HEPA) filters to clean minor spills. Do not sweep or use compressed air to clean up spills. Dispose of spilled material in accordance with local, state, and federal regulations.

7. HANTERING OCH LAGRING

- Handling Precautions:** Avoid generation of dust. Use good housekeeping practices if dusts are formed to prevent accumulation. Use appropriate personal protection. Contact qualified safety and health specialists to review usage and possible exposures.
- Storage Requirements:** Store in cool, dry, and well ventilated area away from incompatibles. Protect from physical damage and contact with water.
- Regulatory Requirements:** Follow OSHA, EPA, and DOT requirements.

8. BEGRÄNSNING AV EXPONERINGEN/PERSONLIGT SKYDD

- Air Monitoring:** Air monitoring should be performed by a professional industrial hygienist to determine the level of exposure. Results from monitoring will help to determine the appropriate personal protective clothing, and equipment required.
- Respiratory Protection:** Air monitoring will help determine if and what level of respiratory protection is required. A respiratory protection program must be implemented if respirators are required (29 CFR 1910.134). Half face air purifying respirators with high efficiency particulate (HEPA) filters can be used when airborne concentrations do not exceed ten (10) times the Equivalent Exposure for PELs or TLVs.
- Protective Clothing:** Normal work clothes may be worn when airborne exposures are within allowable limits and contact with dust is not likely to occur. Use a qualified safety and health specialists to perform a hazard assessment (29 CFR 1910.133).
- Engineering Controls:** Local exhaust ventilation should be used whenever feasible to capture dust or fumes before reaching workers' breathing zone. Local exhaust should meet criteria in NFPA 481. Use vacuum cleaners rated to clean up explosive dust and equipped with High Efficiency Particulate (HEPA) filters to clean work surfaces and protective clothing before removal. Use non-sparking metal equipment.
- Work Practices:** Food and beverages should not be consumed, tobacco products should not be present or used, and cosmetics should not be applied in areas where dust or fumes are present. Workers should wash their hands and face prior to eating, drinking, smoking, or applying cosmetics and at the end of the work shift. Adequate washing facilities should be available and used by workers. Keep work areas free of waste.

9. FYSIKALISKA OCH KEMISKA EGENSKAPER

- Form:** tråd
- Färg:** silver / silvergrå
- Lukt:** luktfri
- Fysikaliskt tillstånd:** fast form

10. STABILITET OCH REAKTIVITET

- Stability:** Titanium alloys are stable at room temperature under normal storage and handling conditions. Conditions Contributing to Instability: Avoid creating dusty airborne conditions. Violent explosion can occur when water comes in contact with molten metal (reference NFPA 481).
- Incompatibility:** Avoid contact with red fuming nitric acid (NFPA 481). Reacts violently with cupric or lead oxide when heated (NFPA 491M). Reacts with fluorine, dry chlorine, potassium chlorate, potassium nitrate, and potassium permanganate (NFPA 481 and 491M).
- Hazardous Decomposition Products:**
Toxic metal oxide fumes.
- Conditions Contributing to Hazard Polymerization:**
None Known

11. TOXIKOLOGISK INFORMATION

- Eye Effects:** No known human testing.
- Skin Effects:** Mild irritation (TiO₂)
- Acute Inhalation Effects:** Human, inhalation, TCLo: 1 mg/m³/8 hr (V₂O₃); Rat, unreported, LD50: 27500 µg/kg (Cr)
- Chronic Effects:** Rat, inhalation, TD50: 158 mg/kg (TiO₂)
- Carcinogenicity:** Inadequate human evidence, IARC Group 3 (TiO₂); Known to be carcinogenic by NTP (as Cr)
- Teratogenicity:** No references found.
- Mutagenicity:** Mouse, interperitoneal, Micronucleus Test: 3 gm/kg/3 Days (TiO₂) See NIOSH, RTECS YW1355000 (vanadium), GB4200000 (chromium), and XR2275000 (titanium oxide) for additional toxicity data.

12. EKOLOGISK INFORMATION

- Ecotoxicity:** There is little tendency for bioaccumulation along food chain.
- Environmental Degradation:** In water, Titanium alloys will eventually precipitate in sediments. Titanium alloys will not rust in salt water.

13. AVFALLSHANTERING

Dispose of spilled material in accordance with local, state, and federal regulations.

14. TRANSPORTINFORMATION

- DOT Transportation Data:** Titanium alloys are not listed in 49 CFR 172.101

15. GÄLLANDER FÖRESKRIFTER

The OSHA PELs are included in Section 2. The titanium alloys contain toxic chemicals subject to the reporting requirements of SARA Title III Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This law requires certain manufacturers to report annual emissions of specific toxic chemical and chemical categories. Aluminum as a fume or dust, vanadium, molybdenum trioxide, and chromium are listed as Section 313 toxic chemicals. The titanium alloys may also require notification under SARA Title III Section 311/312 if inventories exceed the Threshold Planning Quantity. Your State Emergency Planning Committee should be contacted to determine if the Threshold Planning Quantity reporting requirements for your state are lower than EPA reporting requirements.

SARA Categories: Immediate (acute) health hazard and Delayed (Chronic) health hazard.

16. ANNAN INFORMATION

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