Safety Data Sheet
Regulation (EC) No 1907/2006 Annex II
Compliance Article 31

LASER WIRE AR TI

1. Substance or mixture and society identificaion

1.1. Product identifier
Alloy designation: Laser Wire AR Ti
Description: laser wire alloy Ti colour: white
Group of product: not precious wire gmdn number: 35857
Field of application: wire laser welding Ti shape: wire
Contraindications: do not use in case of known allergy to any of the components.
Do not use in combination with the flame or oven welding methods.

1.2. Relevant identified uses of the substance or mixture and uses advised against
Description / use wire to Ti laser welding.All other uses are not recommended.

1.3. Supplier safety data sheet information
Business name: Aurotre S.r.l.
Address: Via rieti, 5 - 25125 Brescia (BS) ITALY
Tel.+39 030-3544806
E-mail of the competent person responsible for the safety data sheet: aurotre@aurotre.com

1.4. Emergency contact
For any urgent matter call at +39 030-3544806

2. Hazard identification

2.1. Substance or mixture classification
The product is not classified as hazardous pursuant to the provisions of Directives 67 /548 / CEE and 1999/ 45 / CE and / or Regulation (CE) 1272/2008 (CLP) (and subsequent amendments).

2.2. Label elements
Danger labeling under directives 67 /548 / CEE and 1999/ 45 / CE and following amendments and adjustments.
Warning symbols: None.
Risk phrases (R): None.
Safety advice (S): None.

2.3. Other hazards
EYES: Contact with eyes may cause severe irritation.
SKIN: May cause severe irritation and possible burns.Possible dermatitis.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.
Inhalation: May cause irritation and burns of the respiratory tract (fumes).

LASER WIRE AR TI

3. Composition / information on ingredients

3.1. Substance
Non relevant information.

3.2. Mixture
It contains:
Identification.TITANIUM CAS.7440-32-6 CE.231-142-3 Conc.% (By mass).99,5 %
Fe, H, N, O < 1.0%

4. First aid measures

4.1. First aid measures description
EYES Rinse immediately with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.In case of persistent discomfort, consult an ophthalmologist.
SKIN Wash skin thoroughly with soap and water.
INHALATION Bring the subjects in the open air and if necessary to administer oxygen.Any appreciable additional symptoms apply first and measures.Consult a doctor.
INGESTION If the subject is conscious and alert give 2 o 4 cups of milk or water.Induce vomiting.Do not give anything by mouth if the person is unconscious.Consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed
For symptoms and effects caused by the contained substances see chap.11.

4.3. Indication of any immediate medical attention and special treatment
Follow your doctor's instructions.

5. Fire-fighting measures

5.1. Extinguishing
SUITABLE EXTINGUISHING MEDIA
The extinction equipment should be of the conventional kind: carbon dioxide, foam, powder and nebulised water.
EXTINGUISHING MEDIA NOT SUITABLE
No one in particular.

5.2. Special hazards arising from the substance or mixture
HAZARDS CAUSED BY EXPOSURE IN CASE OF FIRE
The material is fire-proof and explosion-proof.Heating above the melting range may generate flammable fumes.

5.3. Advice for firefighting employee
GENERAL INFORMATIONS
Always wear full fire prevention gear.Collect extinguishing water to prevent it from draining into the sewer.Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
EQUIPMENT
Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), a mask with overpressure with facemask covering the whole of the operator's face or the self (self-protector) in the event of large quantity of fume.

6. Measures in case of accidental release

6.1. Personal precautions, protective equipment and procedures in case of emergency devices
Avoid dust formation.If powders are released into the respiratory protection.

6.2. Environmental precautions
Prevent the product from entering sewers, surface water, ground water and neighboring areas.

6.3. Methods and materials for containment and cleaning up
Pick up mechanically the product.The disposal of the material should be in accordance with point 13.

6.4. Reference to other sections
Any information on personal protection and disposal is given in sections 8 and 13.7.

7. Handling and storage

7.1. Precautions for safe handling
Handle the product after consultation with all other sections of this SDS.Do not eat, drink or smoke while handling it.
Avoid inhaling fumes while melting and dust while grinding.To avoid accidental ingestion, wash hands thoroughly before eating or smoking.

7.2. Conditions for safe storage, including any incompatibilities
Normal storage conditions without particular incompatibilities.

7.3. Specific end uses
Information not available.

LASER WIRE AR TI

8. Exposure control and individual protection

8.1. Control parameters
VALUE OF THE THRESHOLD LIMIT: Titanium (fumes and dust) TLV not established.

8.2. Exposure controls
GENERAL INFORMATION: It must be used a general and local ventilation system and an exhaust fume filtration system.
BREATHING: Dust mask P1
EYE PROTECTION: Safety glasses with blinders on.In the event of fumes or dust: wear goggles rounded shape.
SKIN PROTECTION: Wear protective clothing and gloves.
HYGIENE MEASURES: Wash face and / or hands before break and after work.If workplace limits are exceeded and / or if there is leakage of large amounts (loss, spill, dust) you must use the protective equipment mentioned for the respiratory system.
Do not eat, drink or smoke in the workplace.

9. Physical and chemical

9.1. Information on basic physical and chemical properties
Appearance solid
White color
Odour
odor threshold.NA (not available).
pH.NA (not available).
Melting point 1670 ° C
Boiling point.NA (not available).
Distillation range.NA (not available).
Flash point.NA (not available).
Evaporation Rate (not available).
Flammability of solids and gases (not available).
lower flammable limit.NA (not available).
upper flammable limit.NA (not available).
lower explosive limit.NA (not available).
upper explosive limit.NA (not available).
vapor pressure.NA (not available).
Vapour density (not available).
specific weight 4507 kg / m3
Solubility insoluble in water: Insoluble

auto-ignition temperature.NA (not available).
decomposition temperature.NA (not available).
Viscosity NA (not available).
NA oxidant properties (not available).
9.2.Further information.
Relative density: 4.5 g / cm3
Yield strength Rp0,2 335 N / mm2 (0.25) - 250 N / mm2 (0.50)
tensile strength Rm 435 N / mm2 (0.25) - 404 N / mm2 (0.50)
Elongation (%) A10: 16 (0.25) - A50: 28 (0.50)
Vickers hardness 122 HV5
Melting range 1677-3277 ° C.

10. Stability and reactivity

10.1. Reactivity
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability
The product is stable under normal conditions of use and storage.

10.3. Possibility of hazardous reactions
Under normal use and storage conditions are not predictable hazardous reactions.

10.4. Conditions to avoid
Corrosive environment.

10.5. Incompatible materials
TO AVOID: Strong acids and oxidizing agents

10.6. Hazardous decomposition products
At temperatures > 400 ° C the alloy oxidizes, but is stable.: At temperatures > 1800 ° C the alloy may produce (hazardous) fumes.

11. Toxicological information

No episodes of damage to health due to exposure to the product.In any case it must be handled in accordance with good industrial practices.

11.1. Information on toxicological effects
Information not available

12. Ecological information

Adopt good working practices, avoiding release of the product in the environment.The material is compatible with the environment.Using the appropriate device for the collection of the powders, it is possible to recycle 100 % of the alloy.

12.1. Toxicity
Information not available.

12.2. Persistence and degradability
Information not available.

12.3. Potential for bioaccumulation
Information not available.

12.4. Mobility in soil
Information not available.

12.5. Results of PBT and vPvB
Information not available.

12.6. Other adverse effects
Information not available.

13. Disposal considerations

13.1. Methods of waste treatment
Whenever possible, recover dust because they have economic value.
Disposal in accordance with local authority regulations.It can be used after reconditioning.

14. Transport information

The product is not dangerous under current provisions governing the transport of dangerous goods by road (A.D.R.) and by Rail (RID), by sea (IMDG Code) and by air (IATA)

15. Regulatory information

15.1. Safety, health and environmental regulations, legislation specific for the substance or mixture
Seveso category.None.
Restrictions relating to the product or contained substances pursuant to Annex XVII to Regulation (CE) 1907/2006.None
Substances in Candidate List (Art.59 REACH).None.
Substances subject to authorization (Annex XIV REACH).None.
Sanitary checks.
Workers exposed to this chemical agent to health must undergo health checks according to the provisions of Article.41 of Legislative Decree no.81 of April 9, 2008 unless the risk for the safety and health of the worker has been assessed irrelevant, according to art.224 paragraph 2

15.2. Chemical safety assessment
No chemical safety assessment has been processed for the substances contained therein.

16. Other information

GENERAL BIBLIOGRAPHY
1.Directive 1999/45 / CE as amended
2.Directive 67/ 548 / CEE and following amendments and adjustments
3.Regulation (CE) 1907/2006 of the European Parliament (REACH)
4.Regulation (CE) 1272/2008 of the European Parliament (CLP)
5.Regulation (CE) 790/2009 of the European Parliament (I Atp.CLP)
6.Regulation (CE) 453/2010 of the European Parliament
7.The Merck Index.Ed.10
8.Handling Chemical Safety
9.Niosh - Registry of Toxic Effects of Chemical Substances
10.INRS - Fiche Toxicologique
11.Patty - Industrial Hygiene and Toxicology
12.N.I.Sax - Dangerous properties of Industrial Materials-7 Ed., 1989
13.Web Site Agency ECHA
Note for the User:
The information contained in this sheet are based on our own knowledge on the date of the last version.The User must verify the suitability and thoroughness of provided information according to each specific use of

the product.
It should not be construed as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility follow the laws and regulations on hygiene and safety.Wedo not assume responsibility for improper use.