



Safety data sheet

This safety data sheet complies with Regulation (EC) No 1907/2006, ISO 11014-1 and Z400.1

1. Identification of the mixture and of the company

Product name: TYSWELD T20 (SG2)

Application: Arc welding

Classification(s): EN ISO 14341-A: G3Si1 AWS A5.18: ER70S-6

Supplier: „TIS” Tomasz Anioł

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2. Hazards identification

Skin contact is normally no hazard but should be avoided to prevent possible allergic reaction. The product is in the process of arc welding the main risks are: high temperature, radiation arc welding fumes, electric shock. . High temperatures and molten metal splashes can cause burns and start fires. Arc rays can severely eyes or skin. Electric shock can kill. Welding fumes may result in symptoms like metal fume fever, dizziness, nausea dryness or irritation of the nose, throat ore eyes. Chronic overexposure to welding fumes may affect pulmonary function. The product contains substances that can affect the nervous system.

3. Composition/information on ingredients

This product is a continuous solid metal wire.

Skład chem.	Maximum Weight %	CAS #	EINECS #	Hazard class
cooper	1	7440-50-8	231-159-6	No
iron	98	7439-89-6	231-096-4	No
manganese	2	7439-96-5	231-105-1	No
silicon	1	7440-21-3	231-130-8	No

Hazard classification according to European Council Directive 67/548/EEC.

4. First aid measures

Inhalation: If breathing is difficult, provide fresh air and call physician.

Eye contact: For radiation burns due to arc flash, see physician.

Skin contact: Arc radiation burns medical consultation is needed

General: Move to fresh air and call for medical aid.

5. Firefighting measures

No specific recommendations for welding consumables.

6. Accidental release measures

Personal precautions: refer to section 8

Environmental precautions: refer to section 13

7. Handling and storage

Proceedings of the product: Avoid welding fumes, radiation, arc, metal spatter, electric shock, hot objects and dust.. Handle with care to avoid stings and cuts.

Storage: Keep separate from chemical substances like acids and strong bases, which could cause chemical reactions.

8. Exposure controls/personal protection

Engineering measures: Ensure sufficient ventilation, local exhaust, or both, to keep welding fumes and gases from breathing zone and general area. Keep working place and protective clothing clean and dry. Train welders to protect against electric shock. Check condition of protective clothing and equipment on a regular basis.

Personal protective equipment: Use respirator or air supplied respirator when welding or brazing in a confined space, or when local exhaust or ventilation is not sufficient to keep exposure values within safe limits. Use special care when welding painted or coated steels since hazardous substances from the coating may be emitted. Wear hand , head, eyes, ear and body protection like welders gloves, helmet or face shield with filter lens, safety boots, apron, arm and shoulder protection. Keep protective clothing clean and dry.

The largest allowable concentrations according to ACGIH 2002:

Substance	CAS #	EINECS #	NDS (mg/m3)
copper	7440-50-8	231-159-6	1
iron	7439-89-6	231-096-4	5
manganese	7439-96-5	231-105-1	0.2
silicon	7440-21-3	231-130-8	10

9. Physical and chemical properties

appearance: solid, non-volatile with varying color

Melting point: >1000°C / 1800 °F

10. Stability and reactivity

General: This product is only intended for normal welding purposes.

Stability: This product is stable under normal conditions.

Reactivity: Contact with chemical substances like acids or strong bases could cause generation of gas. When this product is used in a welding process, hazardous decompositions products would include those from the volatilization, reaction or oxidation of the materials listed in section 3 and those from the base metal and coating. The amount of fumes generated from this product varies with welding parameters and dimensions, but is general no more than 5 to 10 g/kg consumable.

Fume analysis: weight % less then	Fe 65	Mn 15	Pb 0.2	Ni 0.1	Cr 0.1
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Składniki gazowe mogą zawierać tlenki węgla, azotu i ozon.

11. Toxicological information

Inhalation of welding fumes and gases can be dangerous to your health. Classification of welding fumes is difficult because of varying base materials, coatings, air contamination and processes.

Acute toxicity: Overexposure to welding fumes may result in symptoms like metal fume fever, dizziness nausea, dryness or irritation of the nose, throat or eyes.

Chronic toxicity: Overexposure to welding fumes may affect pulmonary function. Prolonged inhalation of nickel and chromium compounds above safe exposure limits can cause cancer. Overexposure to manganese and manganese compounds above safe exposure limits can cause irreversible damage to the central nervous system, including the brain, symptoms of which may include slurred speech, lethargy, tremor, muscular weakness, psychological disturbances and spastic gait.

12. Ecological information

Welding consumables and materials could degrade/weather into components originating from the consumables or from the materials used in the welding process. Avoid exposure to conditions that could lead to accumulation in soils or groundwater.

13. Disposal consideration

Disposal of waste products should be done in an environmentally sound manner, in accordance with applicable regulations. Where possible, use recycling. Remains of the product may be subject to degradation and accumulation in soil or groundwater.

14. Transport information

No international regulations or restrictions are applicable.

15. Regulatory information

Read and understand the manufacturer's instructions, your employer's safety practices and the health and safety instructions on the label. Observe any federal and local regulations. Take precautions when welding and protect yourself and others.

Signage labels:

Fumes and gases are hazardous to your health.

Arc rays and sparks can injure eyes and burn skin.

Electric shock can kill.

Warning: Avoid inhalation of fumes and gases can be hazardous to your health. Use of effective ventilation. Arc radiation can damage eyes and skin. Wear appropriate personal protective equipment. Do not touch the circuit and under voltage

16. Other information

TIS requests the users of this product to study this Safety Data Sheet (SDS).

To promote safe use of this product a user should notify its employees, agents and contractors of the information on this SDS, furnish this same information to each of its customers for the product

The information compiled on the basis of current technical data of the company "TIS" and knowledge about the product.

We assume no liability in connection with any use of the information.

They are not a guarantee of product properties.

Contact TIS for more information.