# SAFETY DATA SHEET (SDS)

## SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

**NAME OF PRODUCT:** STANDARD ELECTRODE UMW0013 (E-R22), UMW0014 (E-R33), UMW0015 (E-R44), STANDARD ELECTRODE UMW0016 (E-205),

**MANUFACTURER:** JAPAN TECHNO ENGINEERING CO., LTD.
6-28-10, Higashikasai, Edogawaku, Tokyo, JAPAN

**TELEPHONE NUMBER** 81-(0)3 3804 6760

**FAX NUMBER :** 81-(0)3 3804 6761

**EMERGENCY CONTACT No. :** SAME AS ABOVE

**RECOMMENDED USE AND RESTRICTIONS ON USE :**

Electric contact, Electrode for Electric Discharge Machining and Resistance Welding Electrode.

## SECTION 2: HARZARDS IDENTIFICATION

**Hazard and Toxicity and Effects**

GHS Classification and GHS label elements

**[GHS Glassification]**

**Physical hazards**

| | | |
|---|---|---|
| Explosives | : | Not eligible for classfication |
| Flammable gases | : | Not eligible for classfication |
| Flammable Aerosols | : | Not eligible for classfication |
| Oxidizing gases | : | Not eligible for classfication |
| Gases under pressure Flammable liquids | : | Not eligible for classfication |
| Flammable solids | : | Not eligible for classfication |
| Self-reactive substances | : | Not eligible for classfication |
| Pyrophoric liquids | : | Not eligible for classfication |
| Pyrophoric solids | : | Classfication not possible |
| Self-heating substances | : | Not eligible for classfication |
| Substances and mixtures | : | Not eligible for classfication |
| Oxidizing liquids | : | Not eligible for classfication |
| Oxidizing solids | : | Not eligible for classfication |
| Organic peroxides | : | Not eligible for classfication |
| Corrosive to metals | : | Classfication not possible |

**Health hazards**

| | | |
|---|---|---|
| Active toxicity (Oral) | : | Not eligible for classfication |
| Active toxicity (Dermal) | : | Not eligible for classfication |
| Active toxicity (Gases) | : | Not eligible for classfication |
| Active toxicity (Vapors) | : | Classfication not possible |
| Active toxicity (Dust and Mist) | : | Classfication not possible |
| Skin corrosion / Skin irritation | : | Not eligible for classfication |
| Serious eye damages / Eye irritation | : | Category 2A |
| Respriratory sensitization | : | Category 1 |
| Skin sensitization | : | Category 1 |
| Germ cell mutagenicity | : | Classfication not possible |
| Carcinogenicity | : | Category 2 |
| Reproductive toxicity | : | Classfication not possible |
| Specific target organ system toxicity | : | Category 1 |
| single exposure | : | |
| Specific targe organ system toxicity | : | Category 1 |
| repeated exposure | : | |
| Aspiration hazard | : | Classfication not possible |

**Environmental hazards**

| | | |
|---|---|---|
| Hazardous to The Aquatic Environment (Acute) | : | Classfication not possible |
| Hazardous to The Aquatic Environment (Chronic) | : | Not eligible for classfication |

**Label Elements**

Pictograph or symbol :

Signed word :

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Distinction between Substance and Mixture

Ingredients and concentration or Concentration range

| Ingredients | Chemical Formula | Cas No. | Composition mass% |
|---|---|---|---|
| Tungsten | W | 7440-33-7 | 27 - 83 |
| Silver | Ag | 7440-22-4 | 17 - 73 |
| Nickel | Ni | 7440-02-0 | 0 - 2 |

## SECTION 4: FIRST-AID MEASURES

If Inhaled : Get medical advice / attention in case of inhaling sawdust.
As nickel is to be formed by nickel carton gas under special conditions, make sure to get mecical advice if exposed to this gas.

If on Skin : Cool mild scalded skin with flushing with plenty of water if your skin attached heated sawdust.
Get medical advice / attention if skin irritation persists.

If in Eyes : Promptly wash eyes clean water while lifting the eye lids. Get medical advice / attention if eye irritation persists.

If Swallowed : After the water has been swallowed. Get Medical advice / attention.

## SECTION 5: FIRE-FIGHTING MEASURES

**Extinguishing Media** : Water has a tremendous effect on sawdust. But you should use an extinguishant under a suitable environment.

**Special hazard** : Around the place where a fire has occurred is closed to all unauthorized people. Fire might cause carbon monoxide gas or graphite. You should wear protective clothing according to the situation. Cool surrounding equipment with sprinkling water.

Extinguishing parson's protection : Fire-Fighters should wear dust protective mask and respiratory protectors.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS**

You should wear breathing protection mask and protective clothing to help minimize the impact of you on dust from machining materials.

**ENVIRONMENTAL PRECAUTIONS**

You should dispose of dust in the way of industrial waste. Do not leak out into the water systems.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP**

Keep away dust from machine processing and clear the air with a high-performing cleaner. In default of the proper way. Clean off the dust with a wet-mop.

## SECTION 7: HANDLING AND STORAGE

**TECHNICAL SAFETY MEASURES**

If sawdust / fume occurs from machining process, put on protective equipment and stay within threshold limit value.

**PRECAUTIONS FOR SAFE HANDLING**

If dust occurs from machining process, you should collect it and wear dust protective mask.

Tungsten powder is in danger of taking fire with heat, spark and fire. Fine tungsten powder has a potential to take fire if it is heated in air.

**CONDITIONS FOR SAFE STORAGE**

You should keep and avoid contacting of materials with acid, alkali, strong oxidant, chlorde and etc.,
Avoid direct sunlight, water leak, heat, high humidity and open strorage to prevent change of properties.
Do not pile up high for load collapse prevention.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Composite material contains no provisions regarding. Refer a diagram below for machined dust.

**Control parameters**

| | | | |
|---|---|---|---|
| **ACGIH** | Tungsten | **TLV-TWA** | **5.0 mg/cm3** |
| | | **TLV-STEL** | **5.0 mg/cm3** |
| | Silver | **TLV-TWA** | **0.1 mg/cm3** |
| | | **TLV-STEL** | **N/A mg/cm3** |
| | Nickel | **TLV-TWA** | **1.5 mg/cm3** |
| | | **TLV-STEL** | **1.0 mg/cm3** |

* ACGIH : American conference of Governmental Industiral hygienists Inc.
TLV-TWA : Time-Weighted average
TLV-STEL : Short term exposure limit

**Protective Equipment**

**Respiratory Protection** : Put on protective mask / protective tool for breathing for dust prevention countermeasure.
**Hand Protection** : Put on protective gloves for dust prevention countermeasure.
**Eye Protection** : Put on eye protector.
**Skin / Body Protection** : As necessary, put on protective cloth, safety hat and protective shoes.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE :** Silver gray solid
**ODOR :** Odorless
**Ph :** No data available
**Boiling Point :** No data available
**FLASH POINT :** No data available
**FLAMMABILITY :** No data available
**BURNING QUALITY OR EXPLOSIVE RANGE :** No data available
**VAPOR PRESSURE :** No data available
**SPECIFIC GRAVITY :** 11.7 - 16.7
**SOLUBILITY** : Insolubility
**SPONTANEOUS IGNITION TEMPERATURE :** No data available
**VISCOSITY :** No data available

## SECTION 10: STABILITY AND REACTIVITY

**REACTIVITY AND CHEMICAL STABILITY**

No data (spontaneous / reation with water / controversial reactivity) available as composite metal. When heated (300℃-500℃) in air, they are oxidized. There is no hazard classification as composite metal. But nickel has the potential to produce hydrogen gas with acid. Under the special reducing condition nickel can produce noxious gas (nickel carbonyl) from carbon monoxide.

**POSSIBILITY OF HAZARDOUS REACTION**

No data available as composite metal.

**CONDITIONS TO AVOID**

No data available as composite metal. Nickel has the potential to produce hydrogen gas with acid. Under the special reducing condition nickel can produce noxious gas (nickel carbonyl) from carbon monoxide.

**HAZRDOUS DECOMPOSITION PRODUCTS**

No data available.

## SECTION 11: TOXICOLOGICAL INFORMATION

Refer to Item 2.

## SECTION 12: ECOLOGICAL INFORMATION

Refer to Item 2.

## SECTION 13: DISPOSAL CONSIDERATIONS

This product, end material, cuttin waste and packing material to be disposed in accordance with international, national, state or municipal regulation about the industrial waste.

## SECTION 14: TRANSPORT INFORMATION

Be careful about rolling, package collapse and falls at transportation.

## SECTION 15: REGULATORY INFORMATION

Industrial Safety and health Act.
Act on Confirmation, etc., of Release Amounts of Specific Chemical Substances
in the Environment and Promotion of Improvements to the Management Thereof.

## SECTION 16: OTHER INFORMATION

**<REFERENCE>**
Brochure that Ministry of Economy, Trade and Industry and Ministry of Health, Labour and Welfare issued,
about the SDS providing system. (October, 2012 issue).
"National Institute of Technology and Evaluation" Internet site
"Site of Safety in a Workplace (Ministry of health, Labour and Welfare" Internet site

* This safety data sheet is prepared based on documents and information available at present.
This safety data sheet is intended to provide reference information to secure the safe handling of our product and is not intended to guarantee the safety of our product.
In the handling of our product, please use this safety data sheet after having understood that it is necessary to take safety measures suitable for a purpose and a method to use, by responsibility of handling company oneself.
In addition, this safety data sheet is a translation of original data sheet written in Japanese.
We shall take no responsibility for its accuracy of the translation.

The end of this safety data sheet.