

# Material Safety Data Sheet

## Hard Drawn Wire

( Control No : MSDS-SW-1501 Date : January 2, 2017 Version : 9)

### 1. Product and Company Identification

- 1.1 Product name : Hard Drawn Wire
- 1.2 Uses : Spring Wire
- 1.3 Company Identification :
- Company Name HONGDUK INDUSTRIAL Co., Ltd
  - Address : #1855 Janghung-Dong, Nam-Gu, Pohang-City, Kyungbuk, Korea
  - Emergency phone : 82-(0)54-271-3650
  - Telefax : 82-(0)54-271-3699
  - Preparer section : Quality Control team

### 2. Hazards Identification

- 2.1 Hazardous, Risk Classification
- Acute toxicity substances(oral) section 4
  - Skin corrosive or irritant substances section 2
  - Serious eye damage or irritant substances section 2A

#### 2.2 Warning Notice Item

O A Pictorial Symbol



O Signal Words : Warning

O Hazardous, Risk Stationery

- (Oral) Harmful if swallowed
- Skin irritation
- Severe eye irritation

O Precaution Stationery

- Prevention

- P264 Wash your hands thoroughly after handling.
- P270 Ban taking, swallowing or Inhaling when using this product.
- P280 Wear facemask, protective gloves, protective clothing, goggles

- Response

- P301+P312 Seek the assistance of medical institutions(doctors) if you feel inconvenient after swallowed
- P330 Rinse your mouth.
- P332+P313 If skin irritation occurs seek medical advice.
- P362 Removing contaminated clothing and wash before reuse.

P305+P351+P338 Wash your eyes cautiously with water for several minutes when foreign substance got in them.

If possible, remove the lens.

Continue rinsing

P337+P313 Seek medical advice if eye irritation persists.

- Save

- Disuse

2.3 Other Hazard that doesn't include the criteria for hazardous, risk classification

O NFPA Index

- Health Not available

- Fire Not available

- Reactivity Not available

### 3. Composition / Information on Ingredients

Ingredient		CAS No.	Contents
Base metal	Fe	7439-89-6	
Impurities	C	7440-44-0	0.24 ~ 0.86%
	Si	7440-21-3	0.15 ~ 0.35%
	Mn	7439-96-5	0.30 ~ 0.90%
	P	7723-14-0	< 0.03%
	S	7704-34-9	< 0.03%
Etc.			
Surface coating	Coating	Zinc Phosphate + Lime	
	Lubricant	Metallic soap(Ca, Na-base)	

### 4. First-Aid Measures

- 4.1 Inhalation : Not available (Not possible as solid state)
- 4.2 Skin Contact : Not available (If physically hert, consult a physician)
- 4.3 Eye contact : It cause loss of eye sight check over an eye doctor immediately.
- 4.4 Ingestion : Not available

### 5. Fire and Explosion hazards

- 5.1 Flash point : Not available
- 5.2 Flammable limits in air : Not available
- 5.3 Extinguishing media : Not available
- 5.4 Special firefighting procedures : Fire danger could be ignored.
- 5.5 Unusual fire & Explosion hazards : Not available

### 6. Accidental Release Measures

- 6.1 Personal precautions : Not available (Harmless chemically)
- 6.2 Environmental Precautions : Not available (Harmless chemically)

### 7. Handling and Storage

- 7.1 Handling : Care in handling to avoid mechanical injury.
- 7.2 Storage : Stocking product boxes under 2-layer is required.

If over stocking could cause physical deformation of wooden boxes.

## 8. Exposure controls / Personal protection

- |  |   |
|--|---|
| 8.1 Engineering controls :                   | Not required                                    |
| 8.2 Respiratory protection :                 | Not required                                    |
| 8.3 Ventilation :                            | Not required                                    |
| 8.4 Protective gloves :                      | Wear not penetration of humidity gloves.        |
| 8.5 Eye protection :                         | wear goggles or safety glasses.                 |
| 8.6 Other protective clothing or equipment : | None  |
| 8.7 Work/Hygienic practices :                | Wash hands after handling wire are recommended. |

## 9. Physical and Chemical Properties

- |  |                                |
|--|--------------------------------|
| 9.1 Appearance/Odor :                                      | Solid, No odor, Copper Colored |
| 9.2 Important health, safety and environmental information |                                |
| - Boiling Range :  | None                           |
| - Vapor Density :  | None                           |
| - Evaporation rate :                                       | None                           |
| - Specific gravity :                                       | 7.8                            |
| - Solubility in water :                                    | Insoluble                      |
| - Appearance and smell :                                   | Linear solid with no smell     |

## 10. Stability and Reactivity

- |  |                             |
|--|-----------------------------|
| 10.1 Stability :                             | Stable                      |
| 10.2 Conditions to avoid :                   | Hot and humidity conditions |
| 10.3 Materials to avoid :                    | None                        |
| 10.4 Hazardous decomposition to byproducts : | None                        |

## 11. Toxicological Information

- |   |  |
|---|--|
| 11.1 Inhalation :                         | Not possible as solid state.               |
| 11.2 Skin and eye contact health risks    | No harmful but, can be hurt by physically. |
| and symptoms of exposure :                | Eye contact can cause loss of eye sight.   |
| 11.3 Ingestion health risks and           | None                                       |
| symptoms of exposure :                    |  |
| 11.4 Health hazards (Acute and chronic) : | None                                       |
| 11.5 Carcinogenicity :                    | None                                       |

## 12. Ecological information

- |                                      |      |
|--------------------------------------|------|
| 12.1 Ecotoxicity :                   | None |
| 12.2 Mobility :                      | None |
| 12.3 Persistence and degradability : | None |
| 12.4 Bioaccumulative potential :     | None |

## 13. Disposal Consideration

- |                              |                              |
|------------------------------|------------------------------|
| 13.1 Waste disposal method : | Material should be recycled. |
|------------------------------|------------------------------|

**14. Transport Information** Not regulated

**15. Regulatory Information**

15.1 Industrial safety of health law None

15.2 Toxic chemicals control act None

15.3 Other regulatory information None

**16. Other Information** None