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SDS 304H

WALSIN LIHWA CORPORATION YENSHUI STAINLESS STEEL DIV.
QUAKITY ENGUNEERING SECTION

WALSIN LIHWA CORP.

Safety Data Sheet

To：YEOU-TZER METALS CO., LTD.

Date：2022/01/10

I. Material and Manufacturer Identification

WALSIN LIHWA CORP. TRADE MARK： **304H**
Product Name：Stainless Steel Wire Rod
Chemical Family：Solid Metal
Manufacturer ：WALSIN LIHWA CORP.
No. 3-10, Shi Jou Liau Chin Shuei Li, Yenshuei Dist 73743 Tainan City, Taiwan, R.O.C.
Tel：(886) 6-652-0911

II. Hazards Identification

WALSIN LIHWA CORP. stainless steels, in the various solid forms, as delivered, are **NOT** known to present immediate inhalation, ingestion, contact or fire health hazards. In such cases, extra precautions appropriate to the operation and industry safety standards should be taken. However, operations such as welding, burring, melting, brazing, peeling, grinding, polishing, and machining etc, which results in the generation of airborne particle or dust may present **Potential** health hazard.

- **Inhalation**：Excessive exposed high concentration of dust or metallic particle may cause irritation to the eye, skin and the upper respiratory system. Symptoms consist of chills and fever, metallic taste in the mouth, dryness and irritation of the throat followed by weakness and muscle pain.
- **Eye**：Particles of metallic compounds or dust, which become imbedded in the eyes, may cause stains unless removed fairly promptly. Welding or burning operations on steel or steel products with coatings may present emissions that can be irritating to the eyes.
- **Skin**：Skin contact with dusts may cause irritation or sensitization.
- **Ingestion**：Highly unlikely
- **Chronic Effects**：

Listed as below are certain potential health effects, which apply to hazardous ingredients were found in steel solid metal：

→ **Chromium**：Suspect carcinogen. Acute effects – Bronchial irritation. Chronic effects– Possible chronic bronchitis, histological fibrosis of lungs, asthma, allergic dermatitis, ulcerations of skin and nasal cavities.

→ **Copper**：(Fume) Acute effects – Moderate irritation of eyes, nose, and throat lungs. Metal Fume Fever Chills, nausea fever, dry throat cough metallic taste. Chronic effects – Irritation of lungs. Discoloration of skin, hair.

→ **Copper**：(Dust and Mist) Acute effects – Mild irritation of eyes, nose, throat and skin. Metallic taste. Chronic effects – Irritation of lungs. Dermatitis.

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→ **Iron**: (Oxide Fume) Acute effects – None. Chronic effects – Repeated exposure over time may cause lung changes. Benign pneumoconiosis. X-Ray shadows indistinguishable from fibrosis pneumoconiosis.

→ **Manganese**: Acute effects - May cause metal fume fever: chills, fever, cough, muscle aches, difficulty in breathing. Chronic effects – Cumulative central nervous system damage. (Parkinson like syndrome). Lung damage. Asthenia. Insomnia. Malaise.

→ **Molybdenum:** Acute effects – Irritation of eyes, nose, throat. Weight loss. Chronic effects - Cumulative liver and kidney damage. Pneumoconiosis. Blood disorders.

→ **Nickel:** Suspect carcinogen. Acute effects – Respiratory irritation, possibly leading to respiratory disease. Chronic effects – Cumulative lung damage. Possible cancer of lungs and nasal cavity. Dermatitis.

→ **Silicon:** Nuisance particulate. Acute effects – Accumulation in lungs, causing respiratory tract irritation. Chronic effects – Non-toxic, but a high temperature, silicon can be transformed into silica, posing a silicosis hazard.

III. Composition / Information on Ingredients

Element	Weight %	CAS number
C (carbon)	0.040~0.100	7440-44-0
Si (Silicon)	1.00max	7440-21-3
Mn (Manganese)	2.00max	7439-96-5
P (Phosphorous)	0.040max	7723-14-0
S (Sulfur)	0.030max	7704-34-9
Ni (Nickel)	8.00~10.50	7440-02-0
Cr (Chromium)	18.00~20.00	7440-47-3
Mo (Molybdenum)		7439-89-6
Cu (Copper)		7440-50-8
Al (Aluminum)		7429-90-5
N (Nitrogen)		7727-37-9
Ti (Titanium)		7440-32-6
Nb (Niobium)		7440-03-1
V(Vanadium)		7440-62-2
B (Boron)		7440-42-8
Fe (Iron)	Balance	7439-89-6

IV. First Aid Measures

Utilize standard first-aid proccdurcs as normally administered for situations rcsulting from day-to-day operation.

Inhalation : Move individual to fresh air, if breathing is difficult or has stooped, administer artificial respiration or oxygen as indicated.

Skin : Wash immediately with water and mild antiseptic detergent.

Eye : Flush with water.

Ingestion : Highly unlikely.

V. Fire-Fighting Measures

None. Product is a metallic solid in wire, rod, bar, strip, sheet, plate or disc form

VI. Accidental Release Measures

None. Product is a metallic solid state.

VII. Handling and Storage

Handling: High concentration of airborne particle or dust should be evaluated and controlled as well, and avoid breathing metal fumes.
Storage: Keep away from acid solution/gas and incompatible material.

VIII. Exposure Controls / Personal Protection

Respiratory Protection	In manufacturing or handling procedures creating dust or fumes – approved respirators should be worn to limit unnecessary inhalation of potentially hazardous dust particles or fumes.
Skin and Eye Protection	Protective clothing, gloves and glasses should be worn as warranted by the manufacturing operation.
Ventilation	In manufacturing or handling procedures creating dust or fumes, exhaust systems should be utilized to exhaust potentially harmful dust particles or fumes.

IX. Physical and Chemical Properties

Physical State：Solid
Appearance and Odor：Metallic Gray/Odorless
Melting Point：1375-1450
Specific Gravity：8.00
Boiling Point：N/A
Vapor Pressure：N/A
Vapor Density：N/A
Evaporation Rate：N/A
Solubility in Water：N/A
Flammability(Solid, Gas)：None
Auto-ignition Temperature：None
Flash Point：N/A
Explosion Limit：N/A
Decomposition Temperature：N/A
pH Value：N/A
Partition Coefficient (n-octanol/water, logkow)：N/A

X. Stability and Reactivity

Stability：Stable
Incompatibility：N/A
Hazardous decomposition ：N/A
Hazardous polymerization ：N/A

XI. Toxicological Information

None, no information is available for the product as solid metal preparation and article.

XII. Ecological Information

None, steel products in wire, rod, bar and other forms do not present an ecological hazard.

XIII. Disposal Considerations

Steel Scrap, dusts or fumes all should be recycled whenever possible.

XIV. Transport Information

In the case of heavy product,exercise care for prevention of load shifting. It is desirable to cover the product with tarpaulin or the like to prevent infiltration of rain water, etc.

XV. Regulatory Information

No specific information

XVI. Other Information

References：
(1)"Safety Data Sheet for Chemical Products" Part 1 "Content and Order of Sections"
(2)Globally Harmonized System of Classification and Labeling of Chemicals (GHS) (Rev.4)