Latest Revision: March 2018

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT NAME:Solder wire

FORNEY SKUs: **38070**, **38101**, **61481**

MANUFACTURER: Forney Industries, Inc.

2057 Vermont Drive

Fort Collins, CO 80525, USA

Phone: 800-521-6038

Emergency Phone: 800-535-5053

Email: customerservice@forneyind.com

2. HAZARD IDENTIFICATION:

Emergency Overview: This product is normally not considered hazardous as shipped. Avoid eye contact or inhalation of dust from the product. When this product is used in a welding process, the most important hazards are welding fumes, heat, radiation and electric shock.

Classification of the Substance/Mixture

CLP/GHS Classification (1272/2008):

Carcinogenicity, Category 2

EU Classification (67/548/EEC):

Harmful (Xn), Carcinogen Category 3, R40

Labelling:

Symbols:

Signal Word: Warning

Hazard-determining components of labelling:

Titanium Dioxide

Hazard Statements:

H351 - Suspected of causing cancer.

Precautionary Statements:

P201 - Obtain special instructions before use.

P202 – Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves/eye protection/face protection.

P281 – Use personal protective equipment as required.

P308+P313 – IF exposed or concerned: Get medical advice/attention.

P402+P404 - Store in a dry place. Store in a closed container.

P405 - Store locked up.

P501 – Dispose of contents/container in accordance with local/regional/national/international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS:

| name of material: solder wire | | | |
|-------------------------------|-----------------------|-------------------------|--|
| Harmful material composition | Component percentages | Hazardous Ingreidents | |
| Sn | 3.3±1.0% | Class 9 - other hazards | |
| Pb | 94.5±1.0% | Class 9 - other hazards | |
| Sb | 2.2±1.0% | Class 9 - other hazards | |
| Cu | ≤0.03 | Class 9 - other hazards | |

| Bi | ≤0.03 | Class 9 - other hazards |
|----|--------|-------------------------|
| Sb | ≤0.1 | Class 9 - other hazards |
| As | ≤0.02 | Class 9 - other hazards |
| Fe | ≤0.02 | Class 9 - other hazards |
| Zn | ≤0.002 | Class 9 - other hazards |
| Al | ≤0.002 | Class 9 - other hazards |
| Cd | ≤0.002 | Class 9 - other hazards |
| S | ≤0.015 | Class 9 - other hazards |

4. First Aid Measures

Inhalation: Remove to fresh air immediately or administer oxygen. Get medical attention immediately.

Skin: Flush skin with large amounts of water. If irritation develops and persists, get medical attention.

Eye: Flush eyes with water thoroughly. Get medical attention.

Ingestion: Obtain medical attention immediately if ingested. Rinse mouth. **Electric Shock**: Disconnect and turn off the power. Use a nonconductive material to pull victim away from contact with live parts or wires. Immediately contact a physician.

5. FIRE-FIGHTING MEASURES:

Suitable Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Welding arcs and sparks can ignite combustible and flammable materials. Use the extinguishing media recommended for the burning materials distance.

Unsuitable Extinguishing Media: Do not use water on molten metal. Large fires may be flooded with water from a distance.

Specific Hazards Arising From Chemical: Keep away from heat/spark/open flames/hot surfaces. Lead oxide.

Protective equipment: Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Refer to section 8.

Environment Precautions: Refer to section 13.

Cleaning Measures: Solid objects may be picked up and placed into a container. Liquid or pastes should be scooped up and placed into a container. Wear proper protective equipment while handling these materials. Do not discard as refuse.

7. Handling and storage

Precautions for Safe handling: Handle with care to avoid stings or cuts. Wear gloves when handling welding consumables. Avoid exposure to dust. Some individuals can develop an allergic reaction to certain materials. Retain all warning and identity labels.

Conditions for safe storage: Store in dry place in closed packages. Keep separate from chemical substances like acids and strong bases, which could cause chemical reactions.

8.Exposure controls/personal protection

MAC: No data

Monitoring Method: No data

Engineering Control: Generally do not need special protection, but need to prevent

the hazard of smoke.

Personal protection:

Respiratory Protection: Wearing a self-priming filter type dust mask to avoid

excessive dust concentration in the air. Wearing air breathing apparatus in case of

emergency for rescue or evacuation.

Hands Protection: Wear appropriate gloves to prevent skin contact.

Eye Protection: Wear safety glasses or goggles.

9. Physical And Chemical Properties

Appearance: Silvery white slightly gray metal wire

Melting Point (°C): 305-310

Boiling Point ($^{\circ}$): not applicable

Relative Density (water = 1): 11.03g/cm3

PH: not applicable

Molecular weight: not applicable

Odour: No

Steam ratio = 1: (air) : no data available

Vapor pressure (21.1 $^{\circ}$): not applicable

5

Relative Density (air = 1): no data

Flash Point: no data

Ignition Temperature: no data

Lower Explosive Limit: no data

10. Stability And Reactivity

Chemical Stability: This product is stable under normal conditions.

Incompatible materials: Reacts with strong oxidant, acid.

Conditions to avoid: no data

11. Toxicological information

Toxicity Category: No data.

Invasion route: Inhale or eat.

health hazard:

Pb: Damage hematopoesis, nerves, digestive system and kidney. Can cause chronic occupational poisoning, neurasthenia syndrome, peripheral neuropathy (with movement function obviously affected), followed by lead poisoning encephalopathy. The digestive system performance has lead the gum line, loss of appetite, abdominal distention, diarrhea or constipation, or abdominal colic cases. Hematopoetic system damage can be porphyritic metabolic disorders, anemia, etc. Contact of large doses can cause acute or sub acute lead poisoning, symptoms similar to severe chronic lead poisoning. Lead can be stored in the body in the form of inorganic substances or dust inhaled, and damage the digestive tract after invading the body, then the bone marrow, liver, kidney, spleen and brain and later released slowly into the blood stream, causing chronic poisoning, acute poisoning. Lead has toxic effects on the body, in the nervous system, blood and cardiovascular system.

Tin: Dust and smoke may cause the skin corrosion, mucous membrane irritation, and dust may cause benign lung disease (tin pneumoconiosis)

Environment hazards: no data

Explosive danger: Powder of flammability.

12. ECOLOGICAL INFORMATION:

Biotoxicity: no data

Biological degradability: no data

Bio-concentration: no data

Other harmful effects: The material may have harm to the environment,

so it is not suggested to expose to the environment.

13. Disposal considerations

Nature Of The Waste: Industrial solid wastes

Waste Disposal Method: Centralize storage to a certain number, and then return to the factory for recycling use.

Matters Need Attention: To eliminate product, please consult the appropriate recycling companies or local authorities.

14. Transport Information

Dangerous Goods Number: Solder wire is not classified as dangerous goods for transport and has no UN number.

Packing Method: No special precautions; carton and pallet packaging or other way.

Shipping Notice: Transportation process should ensure that the container does not leak, collapse, fall, and is not damaged. It is strictly prohibited to mix shipment with oxidant, acids, edible chemicals. Avoid rain, heat. Transportation vehicles should be thoroughly cleaned.

15. Regulatory Information

The hazardous chemical materials safety management regulations (state council order no. 344)

The dangerous goods name table (GB12268-2005)

The classification of dangerous goods and goods number (classified, under GB6944-2005)

The dangerous chemical safety specifications written regulations (GB16483 -2000)

The commonly used classification of dangerous chemicals and mark "(GB1 3690-92)

16. Other Information

The guide introduces the product information. The information contained in this document is believed to be correct as of the date issued. However, no warranty is expressed to be implied regarding the accuracy or completeness of this information. This information and product are furnished on the condition that the person receiving them shall make his own determinations as to the suitability of the product for his particular purpose and on the condition that he assumes the risk of his use thereof.

THE END