



## Section 1. Product and Company Identification.

**1.1 Model Number;** MIG/5K/SS08 v2  
**1.2 Description;** Stainless Steel MIG Wire 5kg 0.8mm 308(S)93 Grade

### 1.3 Manufacturer;

Sealey Group.  
 Kempson Way,  
 Bury St. Edmunds,  
 Suffolk.  
 IP32 7AR

**1.4 Emergency telephone number;** 44 (0) 1284 757 500 (Office Hours)

**Date of source compilation;** April 2010

## Section 2. Hazards Identification.

Not relevant to the Model Number identified in 1.1 with Description stated in 1.2.

## Section 3. Substances.

| 3.1 Chemical Name<br>(substance) | 3.1 CAS No. | 3.2 Concentration<br>Weight | Classification  |  |
|----------------------------------|-------------|-----------------------------|---|--|
|                                  |             |                             | Hazard Class &<br>Category Code   | Hazard<br>Statements                         |
| Iron                             | 7439-89-6   | Bal                         | Flam. Sol. 1<br>Eye Irrit. 2<br>STOT SE 3                                     | H228<br>H319<br>H335                         |
| Chromium                         | 7440-47-3   | 19.5 - 22%                  | Skin Irrit. 2<br>Eye Irrit. 2<br>Muta. 2<br>Carc. 2<br>STOT SE 2<br>STOT RE 2 | H315<br>H319<br>H341<br>H351<br>H371<br>H373 |
| Nickel                           | 7440-02-0   | 9 - 11%                     | Carc. 2<br>Skin Sens. 1   | H351<br>H317                                 |
| Manganese                        | 7439-96-5   | 1 - 2.5%                    | Muta. 1B<br>STOT SE 1<br>STOT RE 1  | H340<br>H370<br>H372                         |
| Silicon                          | 7440-21-3   | 0.3 - 0.65%                 | Flam. Sol. 1<br>Skin Irrit. 2<br>Eye Irrit. 2<br>STOT SE 3                    | H228<br>H315<br>H319<br>H335                 |
| Carbon                           | 7440-44-0   | 0.08%                       | Flam. Sol. 1<br>Self-heat. 2  | H228<br>H252                                 |

For full text of Phrases and Statements, see Section 16.



## **Section 4. First Aid Measures.**

No first aid measures should be required for the unused wire and rod consumables.

## **Section 5. Fire Fighting Measures.**

No specific measures required for the welding consumable prior to welding.

## **Section 6. Accidental Release Measures.**

No specific actions required for the welding consumable prior to welding.

### **6.4. Reference to other sections**

See Section 7 for information on Safe Handling

See Section 8 for information of Personal Protective Equipment.

See Section 13 for information on disposal.

## **Section 7. Handling and Storage.**

**No special precautions are required for this welding consumables.**

### **7.3. Specific end use(s)**

Intended for use as ..... for the Model Number identified in 1.1 with Description stated in 1.2.

## **Section 8. Exposure Controls/Personal Protection.**

No specific measures required for the welding consumable prior to welding.

### **Eye/Face Protection**

Welders should wear a welding helmet fitted with the appropriate optical welding filter for the operation.

### **Skin Protection**

Welders should wear suitable hand protection such as welding gloves or gauntlets of a suitable standard.

### **Respiratory Protection**

No information available.



## Section 9. Physical and Chemical Properties.

### 9.1. Information on basic physical and chemical properties

**The following information is not a technical specification or sales specification.**

|   |                                   |
|---|-----------------------------------|
| (a) Appearance:                                   | Silver metal wire or rod - Solid. |
| (b) Odour:  | Odourless.                        |
| (c) Odour threshold;                              | No information available.         |
| (d) pH:   | No information available.         |
| (e) Melting point/freezing point;                 | Approx. 1500°C                    |
| (f) Initial boiling point and boiling range;      | No information available.         |
| (g) Flash point;                                  | No information available.         |
| (h) Evaporation rate;                             | No information available.         |
| (i) Flammability (solid, gas);                    | No information available.         |
| (j) Upper/lower flammability or explosive limits; | No information available.         |
| (k) Vapour pressure;                              | No information available.         |
| (l) Vapour density;                               | No information available.         |
| (m) Relative density;                             | No information available.         |
| (n) Solubility (ies);                             | Insoluble.                        |
| (o) Partition coefficient: n-octanol/water;       | No information available.         |
| (p) Auto-ignition temperature;                    | No information available.         |
| (q) Decomposition temperature;                    | No information available.         |
| (r) Viscosity;                                    | No information available.         |
| (s) Explosive properties;                         | No information available.         |
| (t) Oxidising properties.                         | No information available.         |

**9.2 Other information** No information available.

## Section 10. Stability and Reactivity.

|   |  |
|---|--|
| <b>10.1. Reactivity</b>                         | No information available.                                |
| <b>10.2. Chemical stability</b>                 | No information available.                                |
| <b>10.3. Possibility of hazardous reactions</b> | No information available.                                |
| <b>10.4. Conditions to avoid</b>                | No information available.                                |
| <b>10.5. Incompatible materials</b>             | No information available.                                |
| <b>10.6. Hazardous decomposition products</b>   | Metal oxide fumes and gases are produced during welding. |



## Section 11. Toxicological Information.

### 11.1. Information on toxicological effects

#### **Iron**

One of the main components of fume generated by welding stainless steels is iron oxide. Iron oxide is generally considered a nuisance material and unlikely to cause any significant health effects. The fume particles however accumulate the lungs and lead to a benign pneumoconiosis called siderosis.

#### **Manganese**

Manganese compounds are also found in stainless steel welding fumes. Manganese is mainly a systemic chronic toxin, although exposure to high particulate concentrations can cause some respiratory irritation. Overexposure or inhalation of excessive amounts of manganese has been shown to affect pulmonary function, blood and may cause irreversible central nervous system damage (manganism) which resembles Parkinson's disease. Symptoms of manganism include tremors, impaired speech, facial expression changes, slow clumsy movements and eventually impaired walking. The symptoms are typically not apparent for several years.

#### **Chromium**

Chromium can exist in differing forms in welding fumes and this can determine the potential health effects. Chromium can produce respiratory effects such as nasal ulceration and possible lung cancer. It can also cause contact skin dermatitis. The most toxic form of chromium is hexavalent chromium (Cr6+) which is classified as a human carcinogen. Both types of chromium are found in the fume from this product.

#### **Nickel**

The main health effects of nickel are skin dermatitis and it being classified as a potential human lung carcinogen. It may also cause nasal cancer. Similar to chromium, nickel exists in the fume produced from stainless steel welding.

#### **Molybdenum**

Molybdenum is of low toxicity, and no specific health effects would be expected from exposure to it in welding fume. These gases are formed due to interactions of the arc with surrounding air. Both gases can produce eye, respiratory and lung irritation and also can produce longer term lung effects such as decreased lung capacity, chronic exposure to high levels (e.g. due to build up in confined spaces) can result in acute lung effects such as delayed pulmonary oedema.

#### **Carbon monoxide and carbon dioxide**

Carbon monoxide (CO) is a chemical asphyxiant and its toxicity is due to its affinity for oxygen carrying blood haemoglobin causing fatigue, weakness, dizziness and eventual unconsciousness and possible death. Carbon dioxide (CO<sup>2</sup>) is mainly an asphyxiant but can exert some toxic properties by increasing pulse and heart rate. These gases are mainly formed through decomposition of some electrodes' components, or from oxidation of any carbon in the wires and rods, or from the shielding gas.



## **Section 12. Ecological Information.**

No information available.

## **Section 13. Disposal Considerations.**

Packaging and wire and rod scrap should be disposed of as general waste or recycled. No special precautions are required for this product.

## **Section 14. Transport Information.**

Product identified in 1.1 with description stated in 1.2 is not classified as hazardous for transport.

## **Section 15. Regulatory Information.**

**15.1.** Safety, health and environmental regulations/legislation specific for the substance or mixture  
No information available.

**15.2.** Chemical safety assessment  
No information available.



**Section 16. Additional Information.**

Full text of Phrases and Statements used in Section 3;

- H228: Flammable solid.
- H252: Self-heating in large quantities; may catch fire.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.
- H340: May cause genetic defects.
- H341: Suspected of causing genetic defects.
- H351: Suspected of causing cancer.
- H370: Causes damage to organs.
- H371: May cause damage to organs.
- H372: Causes damage to organs through prolonged or repeated exposure.
- H373: May cause damage to organs through prolonged or repeated exposure.

The above information is believed to be accurate and represents the best information currently available.  
 No warranty is expressed or implied by the above information.  
 We assume no liability resulting from use of the above information.  
 The end user should conduct their own investigations to determine the suitability of the above information for their particular purpose.

| Issue level | Date     | Revisions  |
|-------------|----------|--|
| 1           | 13/04/11 | First issue.   |
| 2           | 01/08/16 | Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14 & 15 |
| 3           | 28/10/16 | Section 9  |
|             |          |  |

End of Safety Data Sheet.