

# SAFETY DATA SHEET

Product Name: Flux cored gasless wire

Issue Date: 22/11/2024 Version: 2

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**PRODUCT NAME:** Flux cored gasless wire For MIG welding process without Gas  
**APPLICATIONS:** For Stock No. 30644 Flux Cored MIG Welding Wire, 0.8mm (450g Pack)  
70084 Flux Cored MIG Welding Wire, 0.8mm (5kg Pack)

**SUPPLIER:** Draper Tools Ltd  
Hursley Road  
Chandlers Ford  
Eastleigh  
Hampshire  
SO53 1YF  
[www.drapertools.com](http://www.drapertools.com)

**Emergency telephone number:** Draper Helpline +44 (0) 2380 494344  
Opening hours 8:30-17:00 Monday – Friday.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The product is not classified according to the Globally Harmonized System (GHS).

### 2.2. Label elements

Label elements  
GHS label elements Void  
Hazard pictograms



Signal word Warning  
Hazard statements H302 - Harmful if swallowed.  
Classification system:  
NFPA ratings (scale 0 - 4)

### Precautionary Statements:

P270 - Do not eat, drink or smoke when using this product.  
P264 - Wash face, hands and any exposed skin thoroughly after handling.  
P301+ P312 - IF SWALLOWED: Call a physician if unwell.  
P330 - Rinse mouth.  
P273 - Avoid release to the environment.  
P501 - Dispose of contents and container to an approved waste disposal plant.

### 2.3. Other hazards

These products consist of odourless, carbon steel sheath, with a flux core, which have a metallic lustre. There are no immediate health hazards associated with these products. These products are not reactive. If involved in a fire, these products may generate irritating fumes and a variety of metal oxides. Finely divided dusts of these products may result in explosive air/dust mixtures.

### Most important hazards:

Inhalation of fume and metal dusts during welding. Inhalation of large amounts of particulates generated by these products during welding operations may be physically irritating and cause deposits of dust in nasal passages. Inhalation of large amounts of dusts or fumes of Iron, the main component of these products, can cause iron pneumoconiosis. Inhalation of dusts and fumes of Iron can also cause metal fume fever. Symptoms of metal fume fever include flu-like symptoms, metallic taste, fever, chills, cough, weakness, chest pain, muscle pain, cardiac abnormalities, and increased white blood cell count. Damage to lungs can occur. Symptoms of metal fume fever can be delayed 24-48 hours. Thermal decomposition can result in generation of fluoride compounds, which in high enough concentration, can cause burns to the respiratory system and possible pulmonary edema in severe causes. Chronic inhalation of dusts and fumes of Iron, the main component of these products can result in deposition of iron in body tissues (siderosis), with symptoms of fibrosis of the pancreas, diabetes mellitus and liver cirrhosis. Chronic inhalation of fumes of Manganese can cause a condition known as "Manganism". Symptoms include central nervous system effects such as tremors, muscle weakness, and behavioural changes. Chronic inhalation of fumes of Calcium Carbonate, a minor

component of this product, can result in a condition known as hypercalcemia, characterized by elevated serum calcium levels, increased density of the skeleton, mental deterioration and possible adverse effects on the renal system. Refer to Section 10 (Stability and Reactivity) for information on the specific composition of welding fumes and gases.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

Definition: Alloy of metals and other elements with a mineral filling.

Dangerous substances:

C.A.S. No.	Substance	Percentage	Symbol
7429-90-5	Aluminium (Al)	<2	AL
471-34-1	Calcium Carbonate	<2	CaCO <sub>3</sub>
7440-50-8	Copper	<1	Cu
7789-75-5	Fluorspar	<5	CaF
7439-89-6	Iron	75-95	Fe
7789-24-4	Lithium Fluoride	<2	LiF
7439-95-4	Magnesium	<3	Mg

### SECTION 4: First aid measures

#### General Advice:

Do not intentionally inhale or misuse product. Only use the product for the application for which it has been formulated and designed.

#### Inhalation:

If fumes generated by welding operations involving this product are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions.

#### Skin contact:

If fumes generated by welding operations involving this product contaminate the skin, begin decontamination with running water. If molten material contaminates the skin, immediately begin decontamination with cold, running water. Minimum flushing is for 15 minutes. Victim must seek medical attention if any adverse reaction occurs.

#### Eye contact:

If fumes generated by welding operations involving this product enter the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Victim must seek immediate medical attention.

#### Ingestion:

If swallowed call physician immediately! Do not induce vomiting unless directed by medical personnel. Rinse mouth with water if person is conscious. Never give fluids or induce vomiting if person is unconscious, having convulsions, or not breathing.

### SECTION 5: Firefighting measures

**Extinguishing media** water, Foam, CO<sub>2</sub>, Powder

**Fire hazards** None.

**Protective equipment** Wear suitable respiratory equipment when necessary.

### SECTION 6: Accidental release measures

**Personal precautions** Not applicable

### SECTION 7: Handling and storage

#### Respiratory Protection:

No special measures necessary. As with all pressurised products take care to avoid spray or contents being inhaled when airborne.

#### Handling

No special handling measures necessary. Wash thoroughly after handling this product. Do not eat or drink while handling this product.

#### Storage

---

Store securely to ensure no risk of injury from falling coils of wire.

## SECTION 8: Exposure controls/personal protection

### Exposure Limits:

(Individual substances)

C.A.S. No.	Substance	Exposure limits
7429-90-5	Aluminium (Al)	4mg m3
471-34-1	Calcium Carbonate	10mg m3
7440-50-8	Copper	0.075mg m3
7789-75-5	Fluorspar	2.5mg m3
7439-89-6	Iron	5mg m3
7789-24-4	Lithium Fluoride	Not listed
7439-95-4	Magnesium	Not listed

### Engineering measures

Use with adequate ventilation to ensure exposure levels are maintained below the limits provided. Ensure operator has respiratory protection or local fume extraction. Prudent practice is to ensure eyewash/safety shower stations are available near areas where this product is used.

### Hand protection

Chemical resistant gloves (PVC). Wash hands thoroughly after use and before handling food. Do not smoke or eat food whilst using the product. Keep product away from food and drinks.

### RESPIRATORY PROTECTION:

Maintain airborne contaminant concentrations below guidelines listed in Section 2. Respiratory Protection is to be worn during welding operations.

### EYE PROTECTION:

Safety glasses. When these products are used in conjunction with welding, wear safety glasses, goggles, or face-shield with filter lens of appropriate shade number.

**HAND PROTECTION:** Wear gloves for routine industrial use. When these products are used in conjunction with welding, wear gloves that protect from sparks and flame.

**BODY PROTECTION:** Use body protection appropriate for task.

## SECTION 9: Physical and chemical properties

**Physical form:** tubular wire in coils

**Appearance:** carbon steel sheath, with a flux core, which have a metallic luster.

**Odour:** Odourless

**Water solubility** Insoluble

**MELTING POINT:** 1535°C (2789.6°F)

## SECTION 10: Stability and reactivity

**Stability** Stable

**DECOMPOSITION PRODUCTS:** Fluoride and calcium compounds and metal oxides.

**NOTE:** The composition and quality of welding fumes and gases are dependent upon the metal being welded, the process, the procedure, and the electrodes used. Other conditions that could also influence the composition and quantity of fumes and gases to which workers may be exposed include the following: any coatings on metal being welded (e.g. paint, plating, or galvanizing), the number of welders and the volume of the work area, the quality of ventilation, the position of the welder's head with respect to the fume plume, and the presence of other contaminants in the atmosphere. When the electrode is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section 2. Fume and gas decomposition products, and not the ingredients in the electrode, are important. Concentration of the given fume or gas component may decrease or increase by many times the original concentration. New compounds in the electrode may form. Decomposition products of normal operations include not only those originating from volatilization, reaction, or oxidation of the product's components but also those from base metals and any coating (as noted previously). The best method to determine the actual composition of generated fumes and gases is to take an air sample from inside the welder's helmet if worn or in breathing zone.

**Materials these products are incompatible with:**

---

As solids, these products will be attacked by strong acids, strong bases, hydrogen peroxide (52% or greater- in presence of manganese dioxide). Hot iron wire burns in chlorine gas. Dusts of these products would be incompatible with strong oxidizers, acetaldehyde, ammonium peroxodisulfate, chloroformamidinium, chloric acid, ammonium nitrate, halogens, dinitrogen tetroxide, nitryl fluoride, polystyrene, sodium acetylide, potassium dichromate, peroxyformic acid, and sodium carbide.

## SECTION 11: Toxicological information

Presented below are human toxicological data available for the components of these products present in concentration greater than 1%. Other data for animals are available for the components of these products, but are not presented in this Material Safety Data Sheet.

### IRON:

TDLo (oral, child) = 77 mg/kg; BAH, gastrointestinal tract, blood effects

### TITANIUM DIOXIDE:

Standard Draize Test (Skin-Human) 300 mg/3 g days-intermittent: Mild irritation effects

### SILICA:

TCLo (inhalation, human) = 16 mppcf/ 8 hours/ 17.9 years/ intermittent; pulmonary system effects  
LCLo, (inhalation, human) = 300  $\mu$ g/m<sup>3</sup>/ 10 years/ intermittent; systemic effects

**SUSPECTED CANCER AGENT:** The components of these products are listed as follows:

**FLUOROSPAR** (as a Fluoride Compound): IARC-3 Possibly Carcinogenic to Humans); ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen)

**IRON** (as Iron Oxide): IARC-3 Possibly Carcinogenic to Humans); ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen)

**LITHIUM FLUORIDE** (as a Fluoride Compound): IARC-3 Possibly Carcinogenic to Humans); ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen)

**SILICA:** ACGIH TLV-A2 (Suspected Human Carcinogen); IARC-1 (Carcinogenic to Humans); NIOSH-Ca (Potential Occupational Carcinogen with no Further Categorization); NTP-R (Reasonably Anticipated to be a Human Carcinogen (limited evidence of carcinogenicity from studies in humans, which indicates that causal relationship is credible); MAK-1 (Substances that Cause Cancer in Man and Which Can Be Assumed to Make a Significant Contribution to Cancer Risk). The information on quartz is pertinent to inhalation of quartz particulates, which is not a likely route of exposure for this component as it exists in this product.

**STRONTIUM FLUORIDE** (as a Fluoride Compound): IARC-3 Possibly Carcinogenic to Humans); ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen)

**TITANIUM DIOXIDE:** IARC Group 3 (Not Classifiable as to Carcinogenicity to Humans), NIOSH-Ca (Potential Occupational Carcinogen with no further categorization), ACGIH-TLV-A4 (Not Classifiable as a Human Carcinogen)

## SECTION 12: Ecological information

### Degradability:

The components of these products occur naturally in the environment and are expected to persist in the environment for an extended period of time. Components of these products will react with water and air to form a variety of stable metal oxides.

### Eco Toxicological Effects:

These products are not expected to cause adverse effects on plant or animal life. Animal studies on copper, manganese indicate various health effects after ingestion and exposures.

### Further harmful ecological Information:

None known.

## SECTION 13: Disposal considerations

### General information

Dispose of in compliance with all local and national regulations.

### Disposal methods

Contact a licensed waste disposal company. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

### Disposal of packaging

---

Empty containers can be sent for disposal or recycling.

#### **SECTION 14: Transport information**

**ADR/RID** Not applicable

**IMDG** Not applicable

**IATA** Not applicable

**Further information** The product is not classified as dangerous for carriage.

#### **SECTION 15: Regulatory information**

Risk Phrase: R11,R15

Safety Phrase: S2,S7/8, S43

#### **SECTION 16: Other information**

##### **Further information**

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.

\*\*\* End of SDS \*\*\*