

MATERIAL SAFETY DATA SHEET

SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME :	SIFSTEEL NO. 11
SYNONYMS :	Not Applicable
PRODUCT CODES :	RO11 [16/2432/48] [01/25/50]

SUPPLIER :	Weldability Sif
ADDRESS :	Peters House, The Orbital Centre, Icknield Way, Letchworth Garden City, Hertfordshire. SG6 1ET. UK.
CONTACT PHONE :	+44 (0) 1462 482200
CONTACT FAX :	+44 (0) 1462 482202

CHEMICAL NAME :	Metal Alloy Rod
CHEMICAL FAMILY :	
CHEMICAL FORMULA :	

PRODUCT USE :	Oxy/fuel Gas Welding applications.
PREPARED BY :	Technical Support Team, Weldability Sif

SECTION 2 : COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT:	
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SUBSTANCE	CAS NO.	% WT	EC NO.	REACH SUBMISSION NO.	TLV/OEL
Fe	7439-89-6	Balance	231-096-4	LA500232-73	5 mg/m ³
Cu	7440-50-8	0.30	231-159-6	PS378310-17	0.2 mg/m ³
Mn	7439-96-5	0.50 – 1.40	231-105-1	PS378310-17	0.2 mg/m ³

SECTION 3 : HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:	This product consists of solid steel wire or rods (which may be copper coated), which are odorless. There are no immediate health hazards associated with the wire or rod form of this product. This product is not flammable nor reactive. If involved in a fire, this product may generate irritating iron fumes and a variety of iron compounds. Emergency responders must wear personal protective equipment suitable for the situation to which they are responding.
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ROUTES OF ENTRY:	During welding operations, the most significant route of over- exposure is via inhalation of fumes.
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POTENTIAL HEALTH EFFECTS	
EYES:	Contact with the wire or rod form of this product can be physically damaging to the eye. Fumes generated during welding operations can be irritating to the skin and eyes. Contact with the molten core wire or rods will burn contaminated skin or

	eyes.
SKIN:	Contact of the wire or rod form of this product with the skin is not anticipated to be irritating. Symptoms of skin over-exposure may include irritation and redness; prolonged or repeated skin over-exposures may lead to dermatitis. Skin absorption is not known to be a significant route of over-exposure for any component of this product.
INGESTION:	Ingestion of the rods is not a likely route of exposure. 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.
INHALATION:	Inhalation is not anticipated to be a significant route of over-exposure to the solid wire or rods. Inhalation of large amounts of particulates generated by this product during welding operations may result in pneumoconiosis (a disease of the lungs). Repeated over-exposures, via inhalation, to the dusts or fumes generated by this product may have adverse effects on the lungs with possible pulmonary oedema and emphysema.
INJECTION:	Though not a likely route of occupational exposure for this product, injection (via punctures or lacerations in the skin) may cause local reddening, tissue swelling, and discomfort.
ACUTE HEALTH HAZARDS:	The chief acute health hazard associated with this product would be the potential for irritation of contaminated skin and eyes when exposed to fumes during welding operations. Inhalation of large amounts of particulates generated by this product during metal processing operations can result in pneumoconiosis (a disease of the lungs). Contact with the molten material will burn contaminated skin or eyes.
CHRONIC HEALTH HAZARDS:	Chronic skin over-exposure to the fumes of this product during welding operations may produce dermatitis (red, inflamed skin). Repeated over-exposures to the fumes generated by this product via inhalation can have adverse effects on the lungs (e.g., pulmonary oedema and emphysema). Repeated or prolonged ingestion exposures to > 50–100 mg of Iron per day can result in deposition of iron in the body tissues, which can cause disease.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:	Skin, respiratory, pancreas, and liver disorders may be aggravated by prolonged over-exposures to the dusts or fumes generated by this product.

CARCINOGENICITY					
OSHA:		ACGIH:		NTP:	
OTHER:					

SECTION 4 : FIRST AID MEASURES

EYES:	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. <u>Minimum</u> flushing is for 15 minutes. Victim must seek immediate medical attention.
SKIN:	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. <u>Minimum</u> flushing is for 15 minutes. Victim must seek medical attention if any adverse reaction occurs.
INGESTION:	Ingestion of the rods is not a likely route of exposure. 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.
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
NOTES TO PHYSICIANS OR FIRST AID PROVIDERS	Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of label and MSDS to health professional with victim. Treat symptoms and eliminate overexposure.

SECTION 5 : FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER:	Not applicable				
(% BY VOLUME) LOWER:	Not applicable				
FLASH POINT:	Not flammable`				
F:					
C:					
METHOD USED:					
AUTOIGNITION TEMPERATURE:	Not flammable				
F:					
C:					
NFPA HAZARD CLASSIFICATION					
HEALTH:	0	FLAMMABILITY:	0	REACTIVITY:	0
OTHER:					

HMIS HAZARD CLASSIFICATION					
HEALTH:		FLAMMABILITY:		REACTIVITY:	
PROTECTION:					

EXTINGUISHING MEDIA:	Water Spray, Carbon Dioxide, Halon, Foam, Dry Chemicals, Any "ABC" Class
SPECIAL FIRE FIGHTING PROCEDURES:	Not applicable
UNUSUAL FIRE AND EXPLOSION HAZARDS:	The molten material can present a significant thermal hazard to firefighters.
HAZARDOUS DECOMPOSITION PRODUCTS:	When involved in a fire, this material may decompose and produce irritating fumes containing iron compounds

SECTION 6 : ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:	Wear protective equipment while handling. Do not discard as refuse.
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SECTION 7 : HANDLING AND STORAGE

HANDLING AND STORAGE:	All employees who handle this material should be trained to handle it safely. Use in a well-ventilated location. Avoid breathing fumes of this product during welding operations. Open containers on a stable surface. Packages of this product must be properly labeled. Store packages in a cool, dry location. Storage in an atmosphere that is wet, moist, or highly humid may lead to corrosion of this product. Store away from incompatible materials (see Section 10, Stability and Reactivity).
HANDLING AND STORAGE:	
OTHER PRECAUTIONS:	

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:	Ensure sufficient ventilation, local exhaust, or both to keep welding fumes and gases from breathing zone and general area. Prudent practice is to ensure eyewash/safety shower stations are available near areas where this product is used.
VENTILATION :	Use with adequate ventilation to ensure exposure levels are

	maintained below the limits provided in Section 2 (Composition and Information on Ingredients).
RESPIRATORY PROTECTION:	Maintain airborne contaminant concentrations below guidelines listed in Section 2 (Composition and Information on Ingredients). If respiratory protection is needed (i.e., a Weld Fume Respirator, or Air-Line Respirator for welding in confined spaces), use only protection compliant with EN12941 or EN149.
EYE PROTECTION:	Safety glasses. When this product is used in conjunction with welding, wear safety glasses, goggles, or face-shield with filter lens of appropriate shade number under EN169.
SKIN PROTECTION:	Wear gloves for routine industrial use. When this product is used in conjunction with welding, wear gloves that protect from sparks and flame.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT:	Wear body protection appropriate for task. Ensure all PPE meets appropriate EN or local standards.
WORK HYGIENIC PRACTICES:	As with all chemicals, avoid getting this product on you or in you. Wash hands after handling this product. Do not eat or drink while handling this product. Use ventilation and other engineering controls to minimize potential exposure to this product.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

The following information is for steel, a related compound:

APPEARANCE:	Metallic copper brown/yellow.
ODOR:	Not applicable
PHYSICAL STATE:	This product consists of solid steel wire or rods (which may be copper coated), which are odourless.
pH AS SUPPLIED:	Not applicable
pH (Other):	
BOILING POINT:	
F:	
C:	3000EC
MELTING POINT:	
F:	
C:	1300EC - 1450EC
FREEZING POINT:	
F:	
C:	
VAPOR PRESSURE (mmHg): @	Not applicable
F:	
C:	20EC
VAPOR DENSITY (AIR = 1): @	Not applicable
F:	
C:	
SPECIFIC GRAVITY (H2O=1): @	7.60 – 7.78
F:	
C:	
EVAPORATION RATE:	Not applicable
BASIS(=1):	
SOLUBILITY IN WATER:	Insoluble
PERCENT SOLIDS BY WEIGHT:	
PERCENT VOLATILE:	
BY WT/ BY VOL @	

F:	
C:	
VOLATILE ORGANIC COMPOUNDS (VOC):	
WITH WATER: LBS/GAL	
WITHOUT WATER: LBS/GAL	
MOLECULAR WEIGHT:	
VISCOSITY: @	
F:	
C:	

SECTION 10 : STABILITY AND REACTIVITY

	<u>STABLE</u>	<u>UNSTABLE</u>
STABILITY:	Yes	

CONDITIONS TO AVOID (STABILITY):	Avoid uncontrolled exposure to extreme temperatures and incompatible materials.
INCOMPATIBILITY (MATERIAL TO AVOID):	Strong acids, strong oxidizers, mineral acids, some halogenated compounds.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	When the welding rod is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section 2 (Composition and Information on Ingredients). Fume and gas decomposition products, and not the ingredients in the welding rod, are important. Concentration of the given fume or gas component may decrease or increase by many times the original concentration. New compounds 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).
HAZARDOUS POLYMERIZATION:	Will not occur
CONDITIONS TO AVOID (POLYMERIZATION):	

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:	
RISK PHRASES:	
SAFETY PHRASES:	7 Keep container tightly closed and dry.
SYMBOL(S):	

SECTION 12 : ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:	
RISK PHRASES:	
SAFETY PHRASES:	61 Avoid release to the environment. Refer to special instructions
SYMBOL(S):	

SECTION 13 : DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:	Waste disposal must be in accordance with appropriate EU National, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Discard in an environmentally responsible manner.
RCRA HAZARD CLASS:	

SECTION 14 : TRANSPORT INFORMATION

ROAD TRANSPORTATION	
PROPER SHIPPING NAME:	Not applicable.
HAZARD CLASS:	
ID NUMBER:	
PACKING GROUP:	
LABEL STATEMENT:	

WATER TRANSPORTATION	
PROPER SHIPPING NAME:	Not applicable.
HAZARD CLASS:	
ID NUMBER:	
PACKING GROUP:	
LABEL STATEMENTS:	

AIR TRANSPORTATION	
PROPER SHIPPING NAME:	Not applicable.
HAZARD CLASS:	
ID NUMBER:	
PACKING GROUP:	
LABEL STATEMENTS:	

OTHER TRANSPORT CONSIDERATIONS:	
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SECTION 15 : REGULATORY INFORMATION

RISK PHRASES	SAFETY PHRASES	INDICATION(S) OF DANGER	WATER HAZARD CLASS
	7, 61		

CHEMICAL INVENTORY:	Substances in this preparation are on the EINECS inventory
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SECTION 16 : OTHER INFORMATION

OTHER INFORMATION:	The information supplied in this Safety Data Sheet is designed only as guidance for 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 in any other process.
PREPARATION INFORMATION:	

For further information, contact Weldability | Sif technical support on **0870 330 7757** or email **service@wholeweld.co.uk**

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