

SAFETY DATA SHEET

GB001 Bare Copper based brazing rods.



Version number: 1
Replaces SDS: 2009-11-23
Issued: 2014-04-01

Not for sale in the USA

Section 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name BARE COPPER BASED BRAZING RODS
(Easiflo Flux, Easyflo Flux Paste, Tenacty no. Flux Paste Stainless Steel Grade, Silverflo 55, Silverflo 40, Silverflo 30, Fridgebraze Bare, Fluxocoat 402, Silvercoat 30, Flux Coated Fridgebraze, Silvercoat 18)

Article-no	Product Packaging Data	Diameter (mm)	Consumable Length (mm)	Pack Mass (kg)	Item Number
	Afrox M15 Bronze		2,0 3,2 5,0 6,3	750 750 750 750	5,0 5,0 5,0 5,0
Afrox Fluxobronze M15		2,5 3,2	450 450	5,0 5,0	W000375 W000376
Afrox Nickel Bronze DB		1,5 2,0 3,2	700 700 700	5,0 5,0 5,0	W000520 W000522 W000521

1.2 Relevant identified uses of the substance or mixture and uses advised against

Article type Gas Brazing: Bare copper based brazing rod Classification: AWS SFA A5.8/5.27 (or other)
Use Oxy-Fuel brazing

1.3 Details of the supplier of the safety data sheet

Supplier Afrox
Street address 23 Webber Street, Selby
Johannesburg, 2001
South Africa
Telephone +27 (0) 11 490 0400
Fax +27 (0) 860 020201
Email Customer.service@afrox.linde.com

1.4 Emergency telephone number

Available outside office hours Yes
Emergency phone number 0860 02 02 02

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Other

Additional product information

Web site: www.afrox.co.za

Section 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1271/2008 [CLP] applicable

2.2 Label elements

Not applicable

2.3 Other hazards

Do not touch hot parts.

Overexposure to the fumes and gases can give rise to dryness of the nose, throat and eyes, respiratory irritation and, in some cases, longer term health effects such as irreversible central nervous system damage and lung deposits.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

This product is a mixture and please refer to Section 3.2

3.2 Mixtures

AWS Classification	Cu	Ag	Zn	Sn	Fe	Mn	Ni	P	Si
BCu-1	99.9 min	-	-	-	-	-	-	0.075	-
RBCuZn-X	46.0-61.0	-	Bal.	1.1	1.20	0.50	11.0	0.25	0.25
BcuP-X	Bal.	1.8-15.5	-	-	-	-	-	4.8-7.5	-

Section 4. FIRST AND MEASURES

4.1 Description of first aid measures

Inhalation	IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms occur.
Skin contact	Burns should be treated by a doctor.
Eye contact	Generally not applicable
Ingestion	Contact a doctor if more than an insignificant amount has been swallowed.

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4.2 Most important symptoms and effects, both acute and delayed

Inhalation

Inhalation of vapours may cause irritation of the respiratory system in very susceptible persons.

Copper, magnesium, aluminium, antimony, iron, manganese, nickel, zinc (and their compounds) in brazing all give rise to thermally produced particulates of smaller dimension than may be produced if the metals are divided mechanically. Where insufficient ventilation or respiratory protection is available these particulates may produce "metal fume fever" in workers from an acute or long term exposure.

Onset occurs in 4-6 hours generally on the evening following exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Not applicable

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Section 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media There is no restriction on the type of extinguisher which may be used.
Use extinguishing media suitable for surrounding area

5.2 Special hazards arising from the substance or mixture

Not applicable

5.3 Advice for fire fighters

Special protective equipment for fire fighters Wear self contained breathing apparatus

Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

General ventilation and local fume extraction must be adequate to keep fume concentrations within safe limits. Use respiratory equipment when brazing in a confined space. Wear protective clothing and eye protection appropriate to welding. Skin contact should be avoided to prevent possible allergic reactions.

6.2 Environmental precautions

Try to prevent the material from entering drains or water courses.

6.3 Methods and material for containment and cleaning up

Not applicable

6.4 Reference to other sections

For *Personal protection* see section 8. For *Disposal* see section 13. For *Environmental precautions* see section 12. For *Precautions for safe handling* see 7.1.

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Preventive handling precautions Ensure adequate ventilation for the welder and others. Use respiratory equipment when brazing in a confined space. Wear protective clothing and eye protection appropriate to welding. Remove all flammable materials and liquids before welding.

General hygiene Wash hands before breaks and immediately after handling the product.

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7.2 Conditions for safe storage, including any incompatibilities

Store welding consumables inside a room without humidity. Do not store welding consumables directly on the ground or beside walls. Store away from chemical substances like acids which could cause chemical reactions.

7.3 Specific end use(s)

Welding process.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Welding fume component	CAS No.	ES-TWA	ES-STEL
Copper, fume	7440-50-8	0.2	
Manganese and its inorganic compounds (as Mn)	7439-96-5	0.5	
Zinc oxide, fume	1314-13-2	5	10
Nickel and its inorganic compounds			
Water soluble		0.1	
Water insoluble		0.5	
Silver compounds (as Ag)		0.01	
Diphosphorus pentoxide	1314-56-3		2
Tin compounds, inorganic (as Sn)	7440-31-5	2	4
Iron oxide fume (as Fe)	1309-37-1	5	10
Silica, amorphous (total inhalable dust)	-	6	
(respirable dust)		2.4	
Carbon Dioxide	124-38-9	5000ppm	15000ppm
Carbon Monoxide	630-08-0	30ppm	200ppm

8.2 Exposure controls

Environmental Exposure Control = Refer to Section 6 of this SDS

Technical precaution measures

General ventilation and local fume extraction must be adequate to keep fume concentrations within safe limits.

Eye / face protection

Wear eye protection appropriate for welding.

Safety gloves

Skin contact should be avoided to prevent possible allergic reactions.

Other skin protection

Wear body protection which helps to prevent injury from radiation, sparks and electric shock.

Respiratory protection

Use respiratory equipment when welding in a confined space. Wear protective clothing

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and eye protection appropriate to arc welding.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance, colour	Metal rods; does not mix with water
Appearance, physical state	Rod
Auto-ignition temperature	Not applicable
Auto-inflammability	Not auto-flammable
Decomposition temperature	Not applicable
Evaporation rate	Not applicable
Explosive properties	Not explosive
Flammability (solid gas)	Not applicable
Flash point	Not applicable
Form	Fast
Initial boiling point and boiling range	Not applicable
Melting point / Freezing point	Not applicable
Odour	Odourless
Odour threshold	Not applicable
Oxidising properties	Not applicable
Partition coefficient: n-octanol / water	Not applicable
pH value	Not applicable
Relative density	Not applicable
Solubility	Not applicable
Solubility in water	Insoluble
Upper / lower flammability or explosive limits	Not applicable
Vapour density	Not applicable
Vapour pressure	Not applicable
Viscosity	Not applicable

9.2 Other information

Not applicable

Other

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Density 8.96g/cm³

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity

Not applicable

10.2 Chemical stability

Stable at normal conditions.

10.3 Possibility of hazardous reactions

Not applicable

10.4 Conditions to avoid

None under normal conditions

10.5 Incompatible materials

Not applicable

10.6 Hazardous decomposition products

Welding fumes and gases. Additional fume may arise from coatings and contaminants on the base material.

Welding fume component	CAS No.	Classification (67/548EEC)	CLP (1272/2008)		Concentration of classified fume components
Copper oxide (Cu)	1317-38-0	-	-	-	30.0 to 60.0
Zinc (Zn)	7440-66-6	-	-	-	30.0 to 60.0
Nickel (Ni)	7440-02-0	R40: Limited evidence of carcinogenic effect R43: May cause sensitisation by skin contact R48/23: Toxic danger of serious damage to health by prolonged exposure through inhalation R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment	Carc. 2 Skin sens 1 STOT RE 1	H351 H317 H372	0.0 to 15.0
Manganese (Mn)	7439-96-5	-	-	-	0.0 to 5.0

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Silicon (Si)	7440-21-3	-	-	-	0.0 to 1.0
Tin compounds (Sn)	7440-31-5	-	-	-	0.0 to 5.0
Iron oxide (Fe)	1332-37-2	-	-	-	Not specified

Classification	H phrase	Text
Skin sensitiser: Category 1	H317	May cause an allergic skin reaction
Carcinogenicity: Category 2	H351	Suspected of causing cancer
STOT RE: Category 1	H372	Causes damage to organs

The classification information above relates to the fume during use

Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Conditions to avoid: none in the form supplied

When welding, fumes and gases generated can be dangerous to health.

Acute toxicology	Excessive exposures may affect human health, as follows: Aspiration may cause pulmonary oedema and pneumonitis Short-term overexposure can cause dizziness, nausea and irritation of the nose, throat or eyes.
Irritation	Not applicable
Corrosive effects	Not applicable
Sensitisation	May cause sensitisation by skin contact
Mutagenicity	Not applicable
Carcinogenicity	Welding fumes are possibly carcinogenic to humans
Repeated dose toxicity	Not applicable
Reproductive toxicity	Not applicable

Section 12. ECOLOGICAL INFORMATION

12.1 Toxicity

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Not Available. Refer to individual constituents

12.2 Persistence and degradability

Not applicable

12.3 Bio accumulative potential

No data available

12.4 Mobility in Soil

Not applicable

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Other adverse effects

Not applicable

Section 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal considerations

Dispose of any product, residue or packing material according to national and local regulations. Spent ;fume extraction filters shall be disposed of as dangerous waste.

Other

Waste code (EWC)

12 01 13 – welding waste

Section 14. TRANSPORT INFORMATION

14.1 UN number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

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Not applicable

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to *Annex II of MARPOL 73/78 and the IBC Code*

Not applicable

Other

Dangerous goods No

Section 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture.

EU regulations *The product does not need to be labelled in accordance with EC directives or respective national laws.*

National regulations *EH40/2005 Workplace exposure limits
The Waste Regulations 2011 No. 988
Local laws and regulations should be carefully observed.*

15.2 Chemical safety assessment

Not applicable

Section 16. OTHER INFORMATION

References to key literature and data sources Regulation (EC) No 1907/2006 of the European Parliament and of the Council, (REACH).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council.
EH40/2005 Workplace exposure limits.
The Waste regulations 2011 No.988
KIFS 2005:7
www.prevent.se
C&L Inventory database
Annex VI CLP Regulation (EC) 1272/2008

Phrase meaning

H317	May cause an allergic skin reaction
H351	Suspected of causing cancer
H372	Causes damage to organs

Other

Manufacturer's notes *Read this Safety Data Sheet carefully and become aware of hazards implied and the safety*

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