

SAFETY DATA SHEET

SF001 Submerged arc fluxes



Version number: 1

Replaces SDS: New

Issued: 2014-03-29

Not for sale in the USA

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

1.1 Product identifier

Trade name SUBMERGED ARC FLUXES
Article-no Afrox HPF-A72 Submerged Arc Flux, Afrox HPF-N90, Afrox HPF-N90F Submerged Arc Flux, Afrox MK-N Submerged Arc Flux

<i>Product Packaging Data</i>	<i>Pack Mass (bags/kg)</i>	<i>Item Number</i>
Afrox HPF-A72	25	W071403
Afrox HPF-N90	25	W071401
Afrox HPF- N90F Submerged Arc Flux	25	W071402
Afrox MK-N Submerged Arc Flux	25	W071406

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

Article type Submerged arc flux AWS A5.17
Use Submerged arc welding.

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

Other

Additional product information Web site: www.afrox.co.za

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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

When the product is used in the welding process the most important hazards are:
Overexposure to fumes and gases from welding can be dangerous to health.
Watch out for splatter, hot metal and slag. It may cause skin burn and cause fire.
Arc rays can injure eyes and burn skin. Electric shock can kill. Avoid touching live electrical parts.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

This product is a mixture and please refer to Section 3.2

3.2 Mixtures

Dangerous components

CAS:14808-60-7 EINECS: 238-878-4	Silicon dioxide	XN: R20-48 Acute Tox. 4, H332	5-12.5%
CAS: 1305-78-8 EINECS: 215-138-9	Calcium oxide	Xi R41 Eye Dam.1,H318	5-12.5%

Non Hazardous components

CAS:1309-48-4 EINECS: 215-1791-9	Magnesium oxide	25-50%
CAS: 7789-75-5 EINECS: 232-188-7	Calcium fluoride	25-50%
CAS: 1344-28-1 EINECS: 215-691-6	Aluminium oxide	12,5-25%
CAS:16389-88-1 EINECS:240-440-2	Dolomite	<2.5%

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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	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Burns from radiation, see doctor.
Ingestion	Contact a doctor if more than an insignificant amount has been swallowed.

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.
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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 Carbon dioxide (CO₂), powder or diffuse jet of water. In case of major fire: Extinguish fire with diffuse jet of water or foam.

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 dust concentrations below acceptable limits. Use respiratory protective device against the effects of fumes and dusts.

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

Pick up mechanically

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.

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

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.

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7.3 Specific end use(s)

Welding process.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

This product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace

8.2 Exposure controls

Technical precaution measures	General ventilation and local fume extraction must be adequate to keep dust concentrations within safe limits.
Eye / face protection	Safety glasses.
Safety gloves	Skin contact should be avoided to prevent possible allergic reactions.
Other skin protection	Protective work clothing.
Respiratory protection	Use suitable respiratory protective device in case of insufficient ventilation (Filter P2)

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance, colour	Grey
Appearance, physical state	Powdered granules
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

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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

Density	2.65g/cm ³
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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

No dangerous decomposition products known.

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Classification	H phrase	Text
Skin Irrit.: Category 2	H315	Causes skin irritation
Eye Irrit.: Category 2	H319	Causes serious eye irritation
STOT SE Category 3	H335	May cause respiratory irritation
STOT RE: Category 2	H373	May cause damage to organs

The classification information 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

The welding process can effect the environment if fume is released directly into the atmosphere. Residues from welding consumables could degrade and accumulate into soils and ground water.

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12.2 Persistence and degradability

Not applicable

12.3 Bio accumulative potential

No further relevant information 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

Not applicable

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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
C&L Inventory database
Annex VI CLP Regulation (EC) 1272/2008

Phrase meaning

H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	May cause 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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information.

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