

Safety Data Sheet

RD 363/1995 and CD 93/112/EC

Valid from: May 2008 *Version:* May 2008
Replace version: 25 April 2005
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1. Identification of the substance/preparation and of the Company

a) Identification of the substance/preparation

Trade name: Cartridge KLK-SOLDAL

Description: Polyethylene capsule with two separate sections. The biggest one which has a coloured cap contains the aluminothermic powder and de smaller one which has a black cap contains the ignition powder.

b) Company / Undertaking identification

Manufacturer: KLK Electro Materiales, S.A.

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2. Composition / Information on ingredients

COMPONENTS	CAS No.	WEIGHT (%)	POWDER SIZE (mm)
<i>a) Aluminothermic powder</i>			
Stabilized aluminium alloy powder			
< 60% Cu	7440-50-8	NOT > 20	0,1 a 0,6
< 60% Al	7429-90-5		
Copper oxide	1317-39-1	NOT > 75	0,1 a 1,0
Additives			
Calcium fluoride	7789-75-5	NOT > 5	≤ 0,2
Calcium Silicon	12013-55-7	NOT > 5	0,1 a 1,0
Tin	7440-31-5	NOT > 10	≤ 0,6

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COMPONENTES	CAS No.	WEIGHT (%)	POWDER SIZE (mm)
b) Ignition powder			
Cuprous oxide	1317-39-1	NOT > 40	≤ 0,1
Cupric oxide	1317-38-0	NOT > 40	≤ 0,1
Stabilized aluminium	7429-90-5	NOT > 20	≤ 0,1
Amorphous phosphor	7723-14-0	NOT > 1	≤ 0,1
Calcium fluoride	7789-75-5	NOT > 5	≤ 0,1
Calcium Silicon	12013-55-7	NOT > 5	≤ 0,1

3. Hazards identification

Aluminothermic reaction is not a spontaneous one, an external source of fire is needed.

The aluminothermic reaction generates molten metal that may cause burns.

4. First-aid measures

Follow standard treatment for burns in the event of contact with reaction or reaction products.

5. Fire-fighting measures

Suitable extinguishing methods for stored product: Dry sand

Not recommended extinguishing methods for stored product: Water.

Special exposure hazards: Water application may react with the aluminium generating flammable gases that may cause explosions.

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6. Accidental release measures

<i>Personal precautions:</i>	Follow standard sweep up methods
<i>Environmental precautions:</i>	Keep away from drains, surface- and ground-water and soil
<i>Methods for cleaning up:</i>	Sweep up the spilled material and follow the indications of clause 13

7. Handling and Storage

a) Handling:

- § Use of protective clothing and gloves suitable for handling hot equipment for performing the welds is recommended
- § Safety glasses are recommended and caution to user to avoid direct eye contact with “flash” or light from reaction
- § No smoking when handling the aluminothermic material

b) Storage:

- § The aluminothermic material should be kept in its original package in a dry and well ventilated place
- § The aluminothermic material should be kept in No Smoking or Open Flame area

8. Exposure controls / Personal protection

<i>Respiratory protection:</i>	Use the aluminothermic material in a well ventilated place. Local exhaust may be necessary when used in confined space
<i>Hand protection:</i>	Use protective gloves
<i>Eye protection:</i>	Use safety glasses
<i>Skin protection:</i>	Wash hands normally when handled or used without gloves and always upon completion of work.

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9. Physical and chemical properties

Appearance: Granular mixture grey in colour.
Odour: Odourless
Flavour: Flavourless
Solubility in water: Insoluble
Ignition temperature: § Aluminothermic powder: > 500°C
§ Ignition powder: > 300°C

10. Stability and reactivity

Stability: Stable. Does not ignites by itself
Materials to avoid: Water, Acids and Alkalis

11. Toxicological information

No toxic effects are known

12. Ecological information

Not adverse effects are known

13. Disposal considerations

Should be mixed 1:1 with sand and land filled

14. Transport information

Flammable under working conditions only

15. Regulatory information

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Labelling of the product

<i>R 10</i>	Flammable under working conditions
<i>S 7/8</i>	Keep the cartridges tight closed and in a dry place
<i>S 16</i>	Keep the cartridges away from any flame or spark source. No smoking
<i>S 36/37/39</i>	Wear proper clothing and gloves and safety glasses.
<i>S 43</i>	To seal off the fire source never use water. Use dry sand

16. Other information

Always read using instructions before to use the aluminothermic cartridges

They are possible to be used during a period of 5years.

Once the reaction starts it is not possible to stop the reaction. Keep away from the reaction source to avoid burns

The aluminothermic reaction generates sparks and molten metal. Be careful to avoid contact between ejections of molten metal and moisture, water or oil

The information contained herein is based on the present state of our knowledge and is intended to provide a description of the characteristics of the product for the purpose of safety

The information contained in this sheet is not to be taken as a guarantee of the properties of the product

It is the responsibility of the user to observe existing laws and regulations relating hygiene, safety and protection of the environment

No responsibility is undertaken for any improper use of the materials covered in this sheet