

Responsible distributor

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1. Product identification

Nature: Welding powder mix

Hazardous component: Aluminium

Use: Industrial

2. Information on the components

This product is not dangerous

<u>Name of substance</u>	<u>% weight</u>	<u>Hazards</u>
IRON OXIDE	50 to 65	Not classified as dangerous
ALUMINIUM	10 to 30	Inflammable solid
MILD IRON	1 to 10	Not classified as dangerous
CAST IRON	0.5 to 3	Not classified as dangerous
FERROMANGANESE	0.5 to 3	Not classified as dangerous

3. Identification of hazards

Phrases relating to hazards : None Not classified as dangerous in relation to the concentration of the components.

Physical and chemical hazards:

Fire or Explosion: The product "welding portion" is classified as not easily inflammable
The product is not explosive under normal conditions of use
There is a risk of explosion of suspended dust in a confined atmosphere and in the presence of an oxidizing gas and an energy source.
Limit dust suspensions when using the portion, especially in confined spaces.
Avoid contact with any sources of heat or ignition at temperatures over 1000°C

Other hazards: Slight, gradual release of inflammable gas in contact with water
Reaction with water, oxidizing agents releasing hydrogen (H₂)
During use:
Very strong exothermic reaction (+ 2000°C) at the time of ingiting the portion, between 15 and 20 seconds, risks of projections of molten metal.
➤ Keep a safe distance during the reaction! Risk of burns
Do not use damp portions as there is a risk of explosion

Health effects and symptoms connected with its use :

- Inhalation : Not considered to be harmful by inhalation under the normal conditions of use. Prolonged exposure to concentrations greater than the allowed limits (10 mg/m³ ; ACGIH) may cause long term damage to the lungs
- Skin contact : Repeated or prolonged contact with the skin may cause irritation.
- Eye contact : Slightly irritating to the eyes
- Swallowing : Large quantities of this product if swallowed can cause the following effects:
nausea

4. First aid

First aid:

- Inhalation: Take the victim outside and make him/her breath fresh air.
- Skin contact: Wash the exposed areas of the skin with a gentle soap and water, then rinse in hot water. Wash clothing before being reworn.
- Eye contact: Immediately and abundantly bathe the eyes in water. Consult a doctor if the discomfort or irritation worsens.
- Swallowing: Rinse the mouth. Give the victim water or milk to drink. If the victim is perfectly conscious/lucid, induce vomiting.

For the attention of the doctor : Symptomatic treatment.

5. Fire-fighting measures

Inflammability class:

Not easily inflammable

Exinction methods:

In the event of a fire, carefully cover the heart of the fire with dry sand, alumina or dry magnesium carbonate.

- Contra-indicated:

Do not use water



Do not use a fire extinguisher

These interdictions must be displayed in the storage area

Particular risks:

Avoid any contact with sources of ignition or heat at a temperature of over 1000°C
May decompose and release hydrogen at high temperatures

Fire protection:

Clear the area of people. Wear suitable personal protective equipment including self-contained breathing apparatus, rubber boots and thick rubber gloves.
Place a sufficient quantity of dry sand and a shovel in the storage room (or area) as an initial fire-fighting measure.

Special procedures:

All fires must be tackled with care.

6. Measures in the event of accidental spillage

Cleaning measures: Collect the substance spilled, taking care to avoid generating dust.
Store the dry product in metal recipients and close with a watertight lid.
Wet products must not be used and must be destroyed.

Precautions for the environment: Avoid infiltration into the sewers, the ground and drinking water system (risk of hydrogen release in contact with water). The authorities must be alerted in case of suspected infiltration.

7. Handling and storage

Storage:



Keep in the original packaging away from moisture, sparks, naked flames and any source of heat or ignition

The storage room (or area):

- must not be located less than 10 m from rooms or equipment occupied or manned by personnel or from rooms presenting particular risks, or be below such rooms or installations
- Must be at least 8 m away from other stored combustible, inflammable materials and other products or objects that are dangerous to use (ignitors (see MSDS TI 02-03), fuels, etc.)
- Must be free of sparks, naked flames, hot spots and any source of heat or ignition of over 1000°C (these conditions must be posted in the storage area)
- Must be accessible to the fire and emergency services from at least one side,
- Must be covered and sheltered from dampness.
- Must not contain recipients containing water or an aqueous solution
- Must contain a sign prohibiting the use of any type of extinguisher.

In case of work generating flames, sparks or hot spots, the "Fire Permit" procedure must be followed.

Electrical installations must be in accordance with good trade practices.

Access to the store (or storage area) must be limited to persons having read this materials safety data sheet.

Smoking in the store (or storage area) is prohibited (this interdiction must be displayed)

Further to statutory tests (C.E.E. – A.10) performed on the "welding portion" product, It is classed as not easily inflammable, the ICPE regulations (environmental code: book 5, title 1) on easily inflammable products do not therefore apply.

Type of outside packaging: Plastic

Handling: Do not generate dust when handling.

After handling the product, wash your hands with water before eating, drinking, smoking and before leaving the workplace. If contact with the eyes or skin is possible, the appropriate personal protective equipment must be used

8. Exposure Controls / Personal Protective Equipment

Personal protective equipment

- breathing apparatus: not required
In case of an excessive risk of exposure to dust and fumes resulting from the reaction when used in a confined space (tunnel, etc.) where there is no exhaust or forced ventilation system, suitable breathing apparatus (FFP3 type) must be used or the crucible must be equipped with its filtration system.



- Eye protection: Safety goggles



- Skin protection: Gloves

- Swallowing: Do not eat, drink or smoke while handling or using the product.

- Industrial hygiene
Ensure that the area is well ventilated to reduce exposure to dust. Avoid any unnecessary exposure.
Spilled products may cause slippery surfaces.
Rapidly remove from the eyes, the skin and clothing.

9. Physical and chemical hazards

Physical state: powder and pellets
Colour: grey and black
Odour: odourless
pH: 10.7
Freezing point (°C): NA
Decomposition temperature (°C): NA
Solubility in water (g/kg): insoluble < 1%
Spontaneous ignition (°C): >1000 °C
Explosion characteristic: Only concerns aluminium shot
Minimum explosion concentration > 40 g/m3
Minimum inflammation energy: > 15 mj

10. Stability and reactivity

Stability: Stable under normal conditions if not exposed to moisture
Dangerous decomposition products: May decompose in contact with damp air
Dangerous reactions: Release of hydrogen in contact with water
Materials to be avoided: Nitric acid. Sulphuric acid. Strong oxidants
Conditions to be avoided: Extremely high or extremely low temperatures. (> 1000°C and < -5°C)

11. Toxicological information

To date, no harmful effects have been observed under normal conditions of use and when the usual industrial hygiene measures are taken.

Inhalation (rat) CL50 (mg/1/4h): No data available
Chronic toxicity: No data available
Ocular toxicity: No data available
Acute toxicity: No data available

12. Ecological information

Information regarding ecological effects: Not assumed to be toxic
Bioaccumulation potential: Not toxic for the environment
Biodegradation (%): No < 1

13. Destruction conditions

Destruction of waste: In accordance with local/national safety regulations in force
Treatment of soiled packaging: After sorting, recycle as appropriate
After use, the packaging shall be completely emptied and closed up. The packaging may only be used for this product.

The various packaging materials (cardboard, plastic, etc) must be eliminated and recycled separately in accordance with decrees no. 94-609 of 13 July 1994 no. 92-377 of 1st April 1992 and 2002-540 of 18 April 2002 or with the national regulations of the country where the products are used.

Waste code	Designation	Type
15.01.02	Plastic	Recycling
15.01.01	Cardboard	Recycling
10.03.99	Welding powder	Special
10.02.02	Alumina	Recycling
12.01.01	Metal	Recycling

14. Information relating to transportation

ADR/RID/IMDG/OACI : Not applicable

The welding portions shall not therefore be subject to the regulations specific to the transport of dangerous materials.

15. Statutory information

As the product is non-hazardous and not easily inflammable, the regulations for Classified Installations for the Protection of the Environment (section 1450) do not apply.

EEC labelling:	Classification, packaging and labelling according to directive 88/379/CEE regarding the provisions for dangerous preparations, amended by directives 89/178/CEE, 90/492/CEE and 93/18/CEE:
Symbol(s):	Unregulated
R Phrase(s):	Unregulated
R 15: releases extremely inflammable gases in contact with water	
S Phrase(s):	Unregulated

16. Other information

Recommended uses and restrictions: See technical data sheet for details.



When used

Very strong exothermic reaction (+ 2000°C) at the time of ingiting the portion, between 15 and 20 seconds, risks of projections of molten metal. Keep a safe distance during this reaction! Risk of burns

The content and format of this materials safety data sheet are in compliance with Directive 93/112/CEE of the EEC Commission.

DELEGATION OF RESPONSIBILITY:

The information contained in this data sheet is from sources that we consider reliable. It is based on current knowledge of the product concerned at the date of writing this document and on national and EU regulations in force at the same date. The information given in this data sheet must be considered as a description of the safety requirements for our product and by no means or in any way as a product warranty.

The purpose of all the regulatory requirements stated is simply to assist the recipient of the document to fulfil the obligations incumbent upon it. This enumeration may not be considered to be exhaustive.

For these reasons, among others, we decline all responsibility in case of loss, damage or expenses incurred by or in any connection whatsoever with the handling, storage, use or disposal of the product. This MSDS has been written and is to be used solely for this product. If the product is used as a component of another product, the information contained herein may not be applicable. If the product is used for a different application to that for which it is intended, the information contained herein shall not be applicable.