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## CHEMICAL PRODUCT SAFETY INFORMATION RECORD

Product: **THERMIT WELD PORTION**

Product Code: **PR 01041-01**

FISPQ date: **12/27/2012**

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **THERMIT WELD PORTION**

Marketed by: **THERMIT DO BRASIL INDÚSTRIA E COMÉRCIO LTDA**

Rua Sargento Sílvio Hollenbach, 601, Barros Filho - Rio de Janeiro - RJ

Zip Code: 21530 - 200

Phone: (21) 2472-4905 – Fax.: (21)2472-4901

#### **EMERGENCY PHONES:**

FIRE BRIGADE: 193

ABIQUIM: 0800 11 8270

### 2. HAZARDS IDENTIFICATION

#### **2.1 Classification of hazards to human health**

##### **Acute Toxicity ((Oral, Dermal or Inhalation):**

- Warning word: Attention
- Hazard phrase: May be harmful if swallowed, in contact with skin or inhaled
- Precaution phrase: Answer to emergency: If you feel ailment, contact a TOXICOLOGICAL INFORMATION CENTER/PHYSICIAN

##### **Corrosion:**

Not applicable

##### **Skin irritation:**

- Warning word: Attention
- Hazard phrase: Causes moderate skin irritation

- Precaution phrase: Answer to emergency: In case of skin irritation consult a physician

**Eye injuries:**



- Warning word: Attention
- Hazard phrase: Causes serious eye irritation
- Precaution phrase: Prevention:  
Wash carefully the body parts affected after handling  
Wear protective gloves/protective clothing/eye protection/face protection
- Precaution phrase; Answer to emergency:  
IN CASE OF EYE CONTACT: Rinse thoroughly with water for several minutes. In the case of wearing contact lenses, remove it, if easy. Continue rinsing  
If the eye irritation persists: Consult a physician

**Respiratory sensibility:**



- Warning word: Hazard
- Hazard phrase: When inhaled may cause allergic symptoms, of asthma or airway impairment
- Precaution phrase: Prevention:  
Avoid inhaling dusts/fumes/gases/mist/vapors/sprays  
In case of inadequate ventilation: Use respiratory protective equipment
- Precaution phrase: Answer to emergency:  
IN CASE OF INHALATION: Remove the person to a ventilated place and keep at rest in a position comfortable for breathing  
In case of respiratory symptoms: Contact a TOXICOLOGICAL INFORMATION CENTER/PHYSICIAN
- Precaution phrase: Disposal: Dispose the content/container in an industrial landfill

**Skin sensibility:**



- Warning word: Attention
- Hazard phrase: May cause allergic skin reactions
- Precaution phrase: Prevention:  
Avoid inhaling dusts/fumes/gases/mist/vapors/sprays  
The contaminated work clothes can not leave the workplace  
Wear protective gloves/protective clothing/eye protection/face protection
- Precaution phrase: Answer to emergency:  
IN CASE OF SKIN CONTACT: Wash with water and soap abundantly  
In case of skin irritation or rash: Consult a physician  
Remove all contaminated clothing and wash it before wearing it again
- Precaution phrase: Disposal: Dispose the content/container in an industrial landfill

**Germ cell mutagenicity:** Not classified

**Carcinogenicity:**



- Warning word: Hazard
- Hazard phrase: Suspected of causing silicosis. Vulnerable organ: Lung
- Precaution phrase: Prevention:  
Obtain specific information before use  
Do not handle the product before you read and understand all safety precautions.  
Wear protective gloves/pants and long-sleeved shirts/eye protection/face protection  
(mask with filter for particulate material)
- Precaution phrase; Answer to emergency: IN CASE OF EXPOSURE OR SUSPICION  
OF EXPOSURE: Consult a physician
- Precaution phrase: Storage: Store in a closed area with key
- Precaution phrase: Disposal: Dispose the content/container in an landfill

**Toxicity to reproduction and lactation:** Not classified

**Aspiration hazard:**



- Warning word: Attention
- Hazard phrase: May be harmful if swallowed and it penetrates the airways
- Precaution phrase: Answer to emergency:  
IN CASE OF SWALLOWED: Immediately contact a TOXICOLOGICAL  
INFORMATION CENTER/PHYSICIAN  
DO NOT induce vomiting



- Precaution phrase: Storage: Store in a closed area with key
- Precaution phrase: Disposal: Dispose the content/container in an industrial landfill

**2.2 Classification of hazards to the aquatic environment:** water soluble mixture, harmful to water courses and lakes.

- Precaution phrase: Prevention: Avoid release to the environment
- Hazard phrase: Harmful to aquatic organisms
- Precaution phrase: Disposal: Dispose the content/container in an industrial landfill

**2.3 Evaluation of physical hazards:** Division 1.6: Extremely insensitive items without danger of mass explosion

### 3. COMPOSITION AND INGREDIENTS INFORMATION

**Product Characteristic:**       SUBSTANCE       MIXTURE

PRODUCT	CHEMICAL OR GENERIC NAME	CAS REGISTRY
Atomized Aluminum in powder	Atomized aluminum	7429-90-5
Manganese Iron	Manganese iron	
Hematite	Hematite	
Debris of Iron and Steel	Nail ends	

**Chemical formula:** Aluminum in powder, manganese iron, hematite and debris of iron and steel.

**Chemical Characterization:** Prepared with thin divided solids.

**Chemical Nature:** Mixture of powders generating solid fuel

**Ingredients that contribute to the danger:** Aluminum in powder, hematite and manganese iron

**Classification and hazard labeling:**

In accordance with the NBR ISO 14725-2:2009 the products are not classified as hazardous substances. No toxicity described to the Al<sub>2</sub>O<sub>3</sub> or Fe<sub>2</sub>O<sub>3</sub> substances.

**Tolerance Limit:** Brazil - Regulatory Norm No.15 - There is no exposure tolerance limit established. Product not classified.



#### 4. FIRST AID MEASURES

**Inhalation:** In case of accident remove the person to a ventilated place. Seek medical aid for any breathing difficulty. If breathing is irregular or stop, begin artificial breathing, administering oxygen, if possible.

**Skin contact:** Remove the contaminated clothing and wash the skin with water and soap.

**Eye contact:** Wash the eyes with clean water for 15 minutes or until decrease the irritation. Call a physician if the irritation persists.

**Ingestion:** DO NOT induce vomiting, call a physician immediately.

**Actions that must be avoided:** Contact with the victim without the use of appropriated protections. Put in risk the life of the rescuer and the victim whenever perform the removal for specialized care.

**Protection for the rescuer:** Complete protective clothing and individual protective equipment. Use disposable surgical gloves for contact with the victim.

**Notes to the physician:** Indicate the victim status and the level of exposure to the product. In case of recent ingestion of large quantities, could be performed gastric emptying procedures, such as gastric washes.

**Additional Information:** In all cases the medical service should be added for complete treatment, observation and support after first aid. Remove any worker who presents allergic reactions to the agent coming from the prolonged contact. Consult a specialist before any worker returns to work in areas where there is exposure to similar material. Contact lenses constitutes a particular risk, so do not use contact lenses in any area. Gelatinous lenses may absorb irritant substances and all other types of lenses concentrate those substances.

Particles can adhere to the lens and cause damage to the cornea.

#### 5. FIREFIGHTING MEASURES

**Exinction media:** Use foam, carbon dioxide (CO<sub>2</sub>), dry chemical powder or water spray.

**Specific hazards of the substance or mixture:** The fire may produce irritating and toxic gases.

**Special methods:** Evacuate the area, keep people out of the wind direction. Fight the fire from a safe distance. Cool down with water fog the containers exposed to the fire.



**Protective measure of the firefighting team:** Wear protective clothing. If there is potential for exposure to steam or decomposition products, use respiratory protective equipment, regardless approved by NIOSH.

Remove all sources of ignition, keep people away and avoid exposure to sparks, fires, hot or metal surfaces heated.

For removal of the material use non-sparking tools and transfer the spilled material into a suitable container, closed, labeled and stored in a place with good ventilation and safe.

## 6. CONTROL MEASURES FOR SPILLS AND LEAKS

Avoid the exposure of ignition, sparks and hot metallic surfaces sources.  
In case of leakage: transfer the material to a suitable container, closed and labeled. In the case of disposal of the material in an industrial landfill: environmental laws must be respected.

Personal precautions: Keep unnecessary people away from the spill.

Removal of ignition sources: Cut or remove the sources of ignition and heat.

Dust control: Avoid procedures that cause dust lifting.

Prevention of inhalation, skin, eyes and mucous contact: Wear personal protective equipment.

Contact prevention: Avoid contact with eyes, skin and mucous. Do not inhale the dust. The product forms a slippery layer with water: care to avoid falls.

Precautions for the environment: Contain the spill with earth dikes or non-flammable absorbent material to minimize the contaminated area; prevent spillage of the product in sewers and waterways; if necessary, notify local authorities.

Methods for removal and cleaning: Recuperation: collect the spilled material by sweeping and repackage it in suitable containers, in a ventilated area for future disposal in accordance with regulations.

Prevention of secondary hazards: Prevent that the product contaminate or be thrown into water bodies.

## 7. HANDLING AND STORAGE



**Precautions for safe handling:** Avoid handling conditions that may cause spills. Do not allow the handle of the product without the use of personal protective equipment - PPE (facial mask with filter for particulate matter, pants, boots and long-sleeved shirt).

**Safe storage conditions including any incompatibilities:** Store the product in a covered, dry, ventilated, away from ignition sources area and keeping the packages closed, preferably on pallets. Was not detected any incompatibility.

**Worker prevention:** The product is inert but, due to the presence of aluminum oxide and iron we recommend the use of facial protection mask for particulate matter and uniform with pants, long-sleeved shirts and safety shoes.

**Fire and explosion prevention:** As a preventive way, should be avoided the contact with ignition sources, such as a direct flame. In the case of environment containing aluminum powder, avoid the generation of electrical discharges. Do not smoke.

**Technical measures:** For greater security, do not eat or drink in product handling areas.

**Package materials:** The packages must comply with the international legislations.

**Materials for Recommended Package:**

**Inner package:** Containers of cardboard, metal or wood. Sheets of paper and plastic trays.

**Outer package:** Cardboard boxes, common natural wood, plywood, reconstituted wood with liner or inner coating.

**Inadequate:** Steel, metal or provided with cracks or openings.

## 8. EXPOSURE CONTROL AND PERSONAL PROTECTION

**Control parameters:** Not applicable.

**Recommended procedures for monitoring:** Adopt the procedures indicated in the NR 15, Ministry of Labour, labor hygiene norms FUNDACENTRO and NIOSH or ACGIH procedures.

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**Engineering control measures:** Manipulate the product in a place with good ventilation.

**Individual personal protective measures:**

The wet iron oxide produces a slippery mud that can cause falls.

**Respiratory protection :** If there are release of dust and fumes, use a facial mask with filter for particles material.



**Hands protection:** Use chemically resistant gloves, such as latex, neoprene or PVC.

**Eyes protection:** Wear safety or wide vision glasses when there is risk of dust generation.

**Skin and body protection:** Utilize full uniform, safety boot, uniform with pants, long-sleeved shirt and safety gloves.

## 9. PHYSICOCHEMICAL PROPERTIES

**Color:** Reddish

**Physical state:** Solid

**Odor and odor limit:** Odorless

**pH:** 4.0 – 7.5 (solution 4%)

**Melting point/freezing point:** Not available.

**Initial boiling point and boiling temperature range:** Not available.

**Flash point:** Not available.

**Evaporation rate:** Not available.

**Flammability (solid;gas):** Not available

**Upper/lower flammability or explosive limit:** Not available.

**Steam pressure:** Not available.

**Steam density:** Not available.

**Relative density:** Not available.

**Solubility:** Not available.

**Octanol/water partition coefficient:** Not available.

**Auto-ignition temperature:** Not available

**Decomposition temperature:** Not available.

**Viscosity:** Not available.

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## 10. STABILITY AND REACTIVITY

**Reactivity:** Not available.

**Chemical stability:** Inert product.

**Possibility of hazardous reactions:** Not available.

**Conditions to be avoided:** Not available.





**Incompatible materials:** Not available.

**Decomposition hazardous products:** The fire may produce irritating and toxic gases.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:** Not available.

**Skin corrosion/irritation:** Not available.

**Serious eye injuries/eye irritation:** Not available.

**Respiratory or skin sensitization:** Not available.

**Germ cell mutagenicity:** Not available.

**Carcinogenicity:** Not available.

**Toxicity to reproduction:** Not available.

**Organ toxicity - specific target - single exposure:** Not available.

**Organ toxicity - specific target - repeated exposure:** Not available.

**Aspiration hazard:** Not available.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Not available.

**Persistence and degradability:** Not available.

**Bioaccumulative potential:** Not available.

**Mobility in the soil:** Not available.

**Other adverse effects:** Not available.

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## 13. CONSIDERATIONS ON FINAL DESTINATION

**Methods of treatment and disposal of residues:** The treatment and disposal of the product should be classified according to the ABNT Norm - NBR 10,004 – Residues classification, its disposal must be performed in industrial landfills complying with all state and local environmental regulations.



**Product:** The product is inert, but should be stored in a covered, dry, ventilated and free from ignition sources area. Should be handled by trained personnel with knowledge of the safety standards and product risks.

**Products debris:** Free of impurities, should be stored in plastic bags or clean containers for future reuse and the contaminated debris should have the same treatment of industrial residues.

**Used package:** Should be performed an environmentally appropriate disposal.

## 14. TRANSPORT INFORMATION

### National and international regulations

The product is **not** classified as hazardous for transport, according to the Ministry of Transport and the United Nations(ONU).

**Land Transport :** Product not classified by MT, Ordinance 201/1997 and Res. ANTT No. 420 of 02/12/2004.

**Waterways Transport:** Regulation not defined.

**Airway Transport:** Regulation not defined.

**ONU number:** Not applicable.

**Proper shipping name:** Not applicable.

**Class/subclass of main and subsidiary risk:** Not applicable.

**Risk number:** Not applicable.

**Package group:** Not applicable.

**Hazard to the environment:** Product not hazardous.

## 15. INFORMATION ON REGULATIONS

### 1. REGULATORY INFORMATION

#### Regulations



The label printed on the product package is in compliance with the Ordinance 3214 of June 08, 1978 of the Ministry of Labour and Employment which approves the Regulatory Norms - NR - and regulates preventive labeling (NR 26, Art 26.6 sub item 26.6.4.). Label information: If leakage occurs, sweep the place and pack the residue in plastic bags or metal buckets. If there is fire, extinguish with dry sand, pressurized water extinguisher. For handling, use waterproof gloves. Avoid inhalation, ingestion, contact with skin and eyes.

## 16. OTHER INFORMATION

The information contained in this record are based on our knowledge of the product. It has been prepared in this record of good faith and represents the best knowledge and experience that you can have on the subject and is intended to describe our product regarding possible concerns, protections to health, occupational safety and the environment, does not mean, however, that completely concludes the subject. We warn that the handling of any chemical substance requires prior knowledge of its hazards for the user. It is up to the company user of the product promotes training of its employees and contractors about the possible risks from the product. The user of the product is solely responsible for determining the regulations applicable to such use in the relevant jurisdiction. The information in this FISQP represents the current data and reflect our best knowledge for the appropriate handling of the product under normal conditions, according to the specific application of the package and/or literature. Any other use of the product involving the combined use with another product or other processes are responsibility of the user. The data and analyzes were based on the Records of Chemical Products from our suppliers, so we take no responsibility for the laboratory analyzes described. This FISQP is updated periodically in accordance with the applicable health and safety standards. This product should be stored and handled by trained personnel and in accordance with the competent local regulations. The information provided here are based on the best of our current knowledge and aims to ensure to the carrier and final user the information available, in order to avoid the risks inherent in the product. We request that this information be knowledge of all the people who have knowledge and direct and indirect contact with the product. For more information, please contact Thermit Brasil., by the phone, fax and e-mail

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mentioned in page 1/10. This Chemical Product Safety Information Record (FISQP) is in accordance with the NBR 14725 – 3 June/2012.

### Bibliography:

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