

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 19.11.2015

Version number 1

Revision: 19.11.2015

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Perchlorure de fer en granulés Réf : AR37 - AR371  
Perchlorure de fer en granulés Réf : AR37 - AR371
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
commercial and / or industrial use
- **Application of the substance / the preparation :** Reagent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
CIF  
240 rue Hélène Boucher  
78530 BUC  
Tél : 01.39.66.96.83 – Fax 01.33.66.97.78  
E-mail : cif@cif.fr – Web : www.cif.fr
- **1.4 Emergency telephone number:**  
France (ORFILA 24h/24) - Tel : +33 (0)1 45 42 59 59  
Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24)  
UK : +44 (0)-870-190-6777 (CARECHEM24)

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008 :**



GHS05

Met. Corr. 1	H290 May be corrosive to metals.
Skin Corr. 1B	H314 Causes severe skin burns and eye damage.
Eye Dam. 1	H318 Causes serious eye damage.



GHS07

Acute Tox. 4	H302 Harmful if swallowed.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
Hexahydrate ferric chloride
- **Hazard statements**  
H290 May be corrosive to metals.

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H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

#### · Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P234 Keep only in original container.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P406 Store in corrosive resistant container with a resistant inner liner.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

#### · 2.3 Other hazards

#### · Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

#### · 3.2 Chemical characterisation: Mixtures

· **Description:** Mixture: consisting of the following components.

#### · Dangerous components:

10025-77-1	Hexahydrated ferric chloride	60%
	Met. Corr. 1, H290; Skin Corr. 1B, H314; Acute Tox. 4, H302; Aquatic Chronic 3, H412	

· **Additional information:** For the wording of the listed risk phrases, refer to section 16.

### SECTION 4: First aid measures

#### · 4.1 Description of first aid measures

#### · General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### · After excessive inhalation:

In case of unconsciousness place patient in a stable laying down side position for transportation.

#### · After skin contact: Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

#### · After swallowing:

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

#### · 4.2 Most important symptoms and effects, both acute and delayed :

No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed :**  
No further relevant information available.

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### **SECTION 5: Firefighting measures**

- **5.1 Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture :**  
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### **SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures :**  
Ensure adequate ventilation  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow the product to enter sewers/ surface water or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Use neutralising agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections :**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protective equipment.  
See Section 13 for disposal information.

### **SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling :**  
Keep receptacles tightly sealed.  
Prevent formation of dust.  
Thorough dedusting.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:**  
Store away from flammable substances.  
Store away from foodstuffs.  
Store away from oxidising agents.  
Store away from metals.  
Store away from water.
- **Further information about storage conditions:** Protect from humidity and water.
- **7.3 Specific end use(s) :** No further relevant information available.

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### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see section 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any significant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:**  
The most current valid lists have been used as a basis for the production of this document.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from food, beverages and petfood.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Gloves material :**  
The selection of suitable gloves does not depend only on the material, but also on further marks of quality which may vary from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked before use.
- **Eye protection:**



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Crystalline
Colour:	Orange yellow
	Brown
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not applicable.
- **Change in condition**

Melting point/Melting range:	37 °C
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<b>Boiling point/Boiling range:</b>	280-285 °C
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not determined.
· <b>Ignition temperature:</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Self-igniting:</b>	Product is not self igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure:</b>	Not applicable.
· <b>Density at 20 °C:</b>	1,66 g/cm <sup>3</sup>
· <b>Relative density :</b>	Not determined.
· <b>Vapour density :</b>	Not applicable.
· <b>Evaporation rate :</b>	Not applicable.
· <b>Solubility in / Miscibility with water at 20 °C:</b>	920 g/l
· <b>Segregation coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>9.2 Other information :</b>	No further relevant information available.

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions :**
  - Reacts with water and acids.
  - Reacts with strong acids and oxidising agents.
  - Reacts with various metals.
- **10.4 Conditions to avoid :** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
  - Hydrogen chloride (HCl)
  - Hydrocarbons
  - Chlorine

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### SECTION 11: Toxicological information

#### · 11.1 Information on toxicological effects

##### · Acute toxicity

Harmful if swallowed.

##### · LD/LC50 values relevant for classification:

**10025-77-1 Hexahydrated ferric chloride**

Oral LD50 500 mg/kg (ATE)

##### · Primary irritant effect:

##### · On the skin:

Causes severe skin burns and eye damage.

##### · On the eyes:

Causes serious eye damage.

· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

· **Carcinogenicity** Based on available data, the classification criteria are not met.

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **STOT-single exposure** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure** Based on available data, the classification criteria are not met.

· **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### · 12.1 Toxicity

· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability :** No further relevant information available.

· **12.3 Bioaccumulative potential :** No further relevant information available.

· **12.4 Mobility in soil :** No further relevant information available.

##### · Ecotoxicological effects:

· **Remark:** Harmful to fish

##### · Additional ecological information:

##### · General notes:

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Harmful to aquatic organisms

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water



Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

#### · 12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects :** No further relevant information available.

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### SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation :**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN3260

· **14.2 UN proper shipping name**

· **ADR**

UN3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Hexahydrated ferric chloride)

· **IMDG**

CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Hexahydrated ferric chloride)

· **IATA**

Corrosive solid, acidic, inorganic, n.o.s. (Hexahydrated ferric chloride)

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class**

8 (C2) Corrosive substances.

· **Label**

8

· **IMDG, IATA**



· **Class**

8 Corrosive substances.

· **Label**

8

· **14.4 Packing group**

· **ADR, IMDG, IATA**

III

· **14.5 Environmental hazards:**

· **Marine pollutant:**

No

· **14.6 Special precautions for user**

Warning: Corrosive substances.

· **Danger code (Kemler):**

68

· **EMS Number:**

F-A,S-B

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· <b>Stowage Category</b>	<i>A</i>
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	<i>Not applicable.</i>
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	<i>5 kg</i>
· <b>Excepted quantities (EQ)</b>	<i>Code: E1</i> <i>Maximum net quantity per inner packaging: 30 g</i> <i>Maximum net quantity per outer packaging: 1000 g</i>
· <b>Transport category</b>	<i>3</i>
· <b>Tunnel restriction code</b>	<i>E</i>
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	<i>5 kg</i>
· <b>Excepted quantities (EQ)</b>	<i>Code: E1</i> <i>Maximum net quantity per inner packaging: 30 g</i> <i>Maximum net quantity per outer packaging: 1000 g</i>
· <b>UN "Model Regulation":</b>	<i>UN 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (HEXAHYDRATED FERRIC CHLORIDE), 8, III</i>

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
*No further relevant information available.*
- **15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

### SECTION 16: Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

#### · **Relevant phrases**

- H290 May be corrosive to metals.*
- H302 Harmful if swallowed.*
- H314 Causes severe skin burns and eye damage.*
- H412 Harmful to aquatic life with long lasting effects.*

#### · **Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*
- IMDG: International Maritime Code for Dangerous Goods*
- IATA: International Air Transport Association*
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals*
- EINECS: European Inventory of Existing Commercial Chemical Substances*
- ELINCS: European List of Notified Chemical Substances*
- CAS: Chemical Abstracts Service (division of the American Chemical Society)*
- LC50: Lethal concentration, 50 percent*
- LD50: Lethal dose, 50 percent*
- PBT: Persistent, Bioaccumulative and Toxic*
- vPvB: very Persistent and very Bioaccumulative*
- Met. Corr. 1: Corrosive to metals, Hazard Category 1*
- Acute Tox. 4: Acute toxicity, Hazard Category 4*
- Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B*
- Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1*
- Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3*