

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

Printing date 09.05.2011

Version number 2

Revision: 09.05.2011

1 Identification of the substance/mixture and of the company/undertaking

- **Date of issue:** 23.03.2010
- **Product identifier**
- **Trade name:** Ferromel 20
- **EINECS/ELINCS/NLP Number:**
231-753-5
- **Index number:**
026-003-01-4
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation:**
Precipitant
Flocculant/ Flocculating agent
Water treatment
Chromate reduction in cement
abatement of chlorose
production of fertiliser
- **Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**
Melspring International B.V. Phone: +31 (0) 26 - 38420 - 00
Arnhemsestraatweg 8 Fax: +31 (0) 26 - 38420 - 11
NL-6881 NG Velp
- **E-mail address of the competent person responsible for the Safety Data Sheet:** *sdb@csb-online.de*
- **Informing department:** Sales / Technics
- **Emergency telephone number:** As above or next toxicological information centre

2 Hazards identification

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



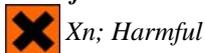
GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

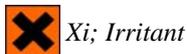
Eye Irrit. 2 H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

R22: Harmful if swallowed.



Xi; Irritant

R36/38: Irritating to eyes and skin.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



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- **Signal word** Warning

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· Hazard statements

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

· Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P312 **IF SWALLOWED:** Call a POISON CENTER or doctor/physician if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P302+P352 **IF ON SKIN:** Wash with plenty of soap and water.
P321 Specific treatment (see on this label).
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Other hazards**· Results of PBT and vPvB assessment**

· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients**· Chemical characterization: Substances****· CAS No. Designation:**

Iron(II) sulfate heptahydrate

· Identification number(s):· **EINECS Number:** 231-753-5· **Index number:** 026-003-01-4**4 First aid measures****· Description of first aid measures****· General information:**

Remove any clothing contaminated by the product.
Symptoms of poisoning may occur after several hours. Medical observation for at least 48 hours after the accident is recommended.
Remove contaminated clothing.

· After inhalation:

Supply fresh air; consult doctor in case of symptoms.
In case of unconsciousness bring patient into stable side position for transport.

· After skin contact:

Rinse with plenty of water.
If skin irritation continues, consult a doctor.

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

Do not induce vomiting; instantly call for medical help.
Rinse out mouth and then drink plenty of water.

5 Firefighting measures**· Extinguishing media****· Suitable extinguishing agents**

Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.

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- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **Special hazards arising from the substance or mixture**
 - Can be released in case of fire:
 - Sulphur oxides (SO_x)
 - Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
 - Cool endangered containers with water spray jet.
 - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Wear protective clothing and keep away unprotected persons.
 - Ensure adequate ventilation.
 - Avoid causing dust.
 - Avoid breathing dust.
- **Environmental precautions:** Do not allow to enter drainage system, surface or ground water.
- **Methods and material for containment and cleaning up:**
 - Ensure adequate ventilation.
 - Collect mechanically.
 - Dispose of contaminated material as waste according to item 13.
 - Dilute with much water.
- **Reference to other sections**
 - See Section 8 for information on personal protection equipment.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
 - Ensure good ventilation/exhaustion at the workplace.
 - Prevent formation of dust.
 - Do not breathe dust.
 - Avoid contact with skin and eyes.
- **Information about protection against explosions and fires:** The product is not flammable.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
 - Observe all local and national regulations for storage of water polluting products.
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
 - Do not store together with alkalis (caustic solutions).
- **Further information about storage conditions:**
 - Protect from humidity and keep away from water.
 - This product is hygroscopic.
 - Protect from contamination.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with critical values that require monitoring at the workplace:**
 - Observe all workplace limits for dust.

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- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Avoid contact with the eyes and skin.
Instantly remove any contaminated garments.
Keep away from foodstuffs, beverages and food.
Do not eat or drink while working.
Wash hands during breaks and at the end of the work.
- **Breathing equipment:**
Dust mask
If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.
- **Protection of hands:**
To avoid skin problems reduce the wearing of gloves to the required minimum.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- **Material of gloves**
Polychloroprene
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
Protective gloves should be replaced at first signs of wear.
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses
- **Body protection:**
Protective work clothing
Protective clothing should be selected specifically for the working place.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Granulate
Colour:	green
Smell:	recognizable

- **pH-value at 20°C:** ~ 2

- **Change in condition**

Melting point/Melting range: ~ 64°C
Boiling point/Boiling range: not determined

- **Flash point:** not applicable

- **Inflammability (solid, gaseous)** Product is not inflammable.

- **Danger of explosion:** Product is not explosive.

- **Density at 20°C:** 1.898 g/cm³

- **Bulk density at 20°C:** 800 - 900 kg/m³

- **Solubility in / Miscibility with**

Water at 10°C: 365 g/l

- **Viscosity:**

dynamic at 20°C: 3 mPas

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10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Loss of constitutional water on heating
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Incompatible materials:** Alkaline materials
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Iron(II) sulfate heptahydrate

Oral	LD50	1520 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Moderate irritant
- **on the eye:** Irritant effect
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**

Harmful

Sulfate iron (II) can be absorbed and the magnesium narcosis cause similar paralysis in larger amounts from the intestine. Ingestion of toxic quantities of iron sulfate causes bloody vomiting, hypotension, hyporeflexia, Melena. It can form constriction of the stomach.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

Iron(II) sulfate heptahydrate

LC50/96 h	925 mg/l (poecilia reticulata)
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- **Additional ecological information:**
- **AOX-indication:** <2 mg/kg
- **General notes:** Water hazard class 1 (Assessment by list): slightly hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Waste disposal key number:** According to local/national regulations.
- **European waste catalogue:**
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border):**
- **ADR/RID Class:** -

- **Maritime transport IMDG-Code:**
- **IMDG Class:** -

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **UN "Model Regulation":** -
- **Special precautions for user** Not applicable.
- **Transport/Additional information:** Transport by post may be prohibited or restricted.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



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- **Signal word** Warning
- **Hazard statements**
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
- **Precautionary statements**
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see on this label).
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **National regulations**
- **Information about limitation of use:** Employment restrictions concerning young persons must be observed.
- **Decree to be applied in case of technical fault:** -
- **Water hazard class:**
Water hazard class 1 (Assessment by list): slightly hazardous for water
ID-Number: 514

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· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Reasons for changes:**

*The Material Safety Data Sheet has been revised. Changes in the respective chapters are characterized in the left side edge by *.*

· **Department issuing MSDS:**

C.S.B. GmbH Phone: +49 - 2151 - 652086-0
 Parkstraße 29 Fax: +49 - 2151 - 652086-9
 D-47829 Krefeld
 Germany

· **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)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent

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