


<b>SAFETY DATA SHEET</b>		In accordance with Regulation 1907/2006 (REACH), amended by Regulation 453/2010	
<b>MANGANESE CARBONATE</b>		3.00 / 20180606	

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY


### 1.1. Product identifier

Name: Manganese Carbonate.  
 Synonyms: Carbonic Acid, manganese salt / Rhodocrosite  
 CLP Annex VI, part 3, index nr. --  
 EC/EINECS No.: 209-942-9  
 CAS No. 598-62-9  
 Registration nr : 01-2119442695-32-0011


### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1 Intended use:


	Formulation
F-1	<b>Welding Industry</b> Related composition: <u>Further description of the use:</u> Contributing activity/technique for the environment: - (ERC2) - (ERC3) Contributing activity/technique for the workers: - (PROC 5) <b>Product Category formulated:</b> PC 7: Base metals and alloys <b>Technical function of the substance:</b> fertilisers (soil amendments) ; pigment ; plating agents and metal surface treating agents Substance supplied to that use: as such
F-3	<b>Pigment / catalyst industry</b> Related composition: <u>Further description of the use:</u> Contributing activity/technique for the environment: - (ERC1) - (ERC6a) - (ERC6b) - (ERC6d) - (ERC7) - (ERC8a) - (ERC8b) - (ERC2) Contributing activity/technique for the workers: - (PROC 2) - (PROC 3) - (PROC 4) - (PROC 8b) - (PROC 15) <b>Product Category formulated:</b> PC 19: Intermediate; PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents <b>Technical function of the substance:</b> pigment

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	Substance supplied to that use: as such
F-4	<p><b>Fertilizer</b>  Related composition:  <u>Further description of the use:</u>  Contributing activity/technique for the environment:  - (ERC5)  - (ERC6a)  - (ERC8b)  - (ERC8d)  - (ERC8e)  - (ERC8f)  - (ERC9b)  - (ERC2)  Contributing activity/technique for the workers:  - (PROC 2)  - (PROC 3)  - (PROC 4)  - (PROC 5)  - (PROC 8b)  - (PROC 9)  - (PROC 11)  - (PROC 13)  - (PROC 26)  <b>Product Category formulated:</b> PC 12: Fertilisers ; PC 19: Intermediate ; PC 0: Other:  <b>Technical function of the substance:</b> fertilisers (soil amendments)  Substance supplied to that use: as such</p>
F-2	<p><b>Formulation as Additive</b> Related composition  <u>Further description of the use:</u> Formulation into additives for improvement of the burning process in the power plants  Contributing activity/technique for the environment:  - (ERC2)  Contributing activity/technique for the workers:  - (PROC 4)  <b>Product Category formulated:</b> -  <b>Technical function of the substance</b> Intermediate  Substance supplied to that use: In a mixture  Remarks:</p>
	<b>Uses at industrial sites</b>
IW-1	<p><b>Pigment / catalyst industry</b>  Related composition:  <u>Further description of the use:</u>  Contributing activity/technique for the environment :  - (ERC1)  - (ERC2)  - (ERC8a)</p>

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	<ul style="list-style-type: none"> <li>- (ERC8b)</li> <li>- (ERC6a)</li> <li>- (ERC6b)</li> <li>- (ERC6d)</li> <li>- (ERC7)</li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- (PROC 2)</li> <li>- (PROC 3)</li> <li>- (PROC 4)</li> <li>- (PROC 8b)</li> <li>- (PROC 15)</li> </ul> <p><b>Product Category used:</b> PC 19: Intermediate; PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents</p> <p><b>Sector of end use:</b> SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) ; SU 9: Manufacture of fine chemicals</p> <p><b>Technical function of the substance:</b> pigment</p> <p>Substance supplied to that use: as such</p> <p>Subsequent service life relevant for that use: no</p> <p>Link to the subsequent service life:</p> <p>Remarks:</p>
IW-2	<p><b>Fertilizer</b></p> <p>Related composition (see section 1.x):</p> <p><u>Further description of the use:</u></p> <p>Contributing activity/technique for the environment:</p> <ul style="list-style-type: none"> <li>- (ERC2)</li> <li>- (ERC8b)</li> <li>- (ERC8d)</li> <li>- (ERC8e)</li> <li>- (ERC8f)</li> <li>- (ERC9b)</li> <li>- (ERC5)</li> <li>- (ERC6a)</li> </ul> <p>Contributing activity/technique for the workers:</p> <ul style="list-style-type: none"> <li>- (PROC 2)</li> <li>- (PROC 3)</li> <li>- (PROC 4)</li> <li>- (PROC 5)</li> <li>- (PROC 8b)</li> <li>- (PROC 9)</li> <li>- (PROC 11)</li> <li>- (PROC 13)</li> <li>- (PROC 26)</li> </ul> <p><b>Product Category used:</b> PC 12: Fertilisers ; PC 19: Intermediate ; PC 0: Other:</p> <p><b>Sector of end use:</b> SU 1: Agriculture, forestry and fishing; SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) ; SU 9: Manufacture of fine chemicals ; SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)</p> <p><b>Technical function of the substance:</b> fertilisers (soil amendments)</p> <p>Substance supplied to that use: as such</p>

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	Subsequent service life relevant for that use: no Link to the subsequent service life:
IW-3	<b>Metal treatment</b> Related composition (see section 1.x): <u>Further description of the use:</u> Contributing activity/technique for the environment: - (ERC8a) - (ERC8b) - (ERC8c) - (ERC8d) - (ERC8f) - (ERC4) - (ERC5) - (ERC6b) Contributing activity/technique for the workers: - (PROC 13) <b>Product Category used:</b> PC 14: Metal surface treatment products, including galvanic and electroplating products <b>Sector of end use:</b> SU 14: Manufacture of basic metals, including alloys ; SU 15: Manufacture of fabricated metal products, except machinery and equipment <b>Technical function of the substance:</b> fertilisers (soil amendments) ; pigment ; plating agents and metal surface treating agents Substance supplied to that use: as such Subsequent service life relevant for that use: no Link to the subsequent service life:

#### 1.2.2 Uses advised against

no additional information

#### 1.3 Details of the supplier of the safety datasheet

Supplier :

GENTROCHEMA BV  
Esdoornlaan 19a, NL-4254 AT Sleeuwijk, Nederland  
Tel. : +31.183.304422 Fax : +31.183.304069  
E-mail : [wl@gentrochema.nl](mailto:wl@gentrochema.nl) Website : [www.gentrochema.nl](http://www.gentrochema.nl)

#### 1.4 Emergency telephone nr :

during office hours (08:30 - 17:00) : +31.183.304422  
After office hours (*only for health professionals*) : +44.870.600.6266


## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance

According to EC-regulation 1272/2008 EC, this substance is NON-hazardous.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

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Chemical characterization: Manganese Carbonate, min. 90 % Mn(II)CO<sub>3</sub>, with non hazardous additions

Composition/information on ingredients :

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CAS nr: 598-62-9  
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#### 4. FIRST AID MEASURES

##### 4.1 Description of first aid measures

- **General information :** No typical symptoms and effects are known.
- **After inhalation :** Remove to fresh air.  
If not breathing give artificial respiration.  
If breathing is difficult, give oxygen.  
If necessary, call a physician.
- **After skin contact :** Immediately flush skin with copious amounts of water.
- **After eye contact :** Immediately flush eyes with copious amounts of water, keeping eyelids open.
- **After swallowing :** Drink plenty of water, provided person is conscious. If necessary call a physician.

##### 4.2. Most important symptoms and effects, both acute and delayed

Not applicable (NON Hazardous substance)

##### 4.3 Indication of any immediate medical attention and special treatment needed

No additional information

#### 5. FIRE-FIGHTING MEASURES

##### 5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide  
Non-suitable extinguishing media : Not known

##### 5.2 Special hazards arising from the substance

Not known

##### 5.3 Advice for fire-fighters

Wear self contained breathing apparatus if necessary.


##### 5.4 Further information

Product is not combustible.

#### 6. ACCIDENTAL RELEASE MEASURES

##### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid causing dust.

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## **6.2 Environmental precautions**

No special protections required.

## **6.3 Methods and materials for containment and cleaning up**

Pick up spilled product, keep in a closed container and hold for waste disposal.

## **6.4 Reference to other sections**

For safe use: refer to section 7

For personal protection: refer to section 8.

For disposal: refer to section 13

# **7. HANDLING AND STORAGE**

## **7.1 Precautions for safe handling**

Avoid causing dust. Do not breathe dust.

## **7.2 Conditions for safe storage, including any incompatibilities**

No additional information

## **7.3 Specific end uses**

No additional information

# **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

The substance does not fulfil the criteria for any of the hazard classes or categories set out in Annex 1 to CLP Regulation (EC) No 1272/2008 (nor is assessed to be a PBT or vPvB substance). Hence, according to article 14(4) of the REACH regulation, exposure assessment is not required.

## **Personal protection :**

Observe usual precautions during handling of this substance.

## **Other information :**

No additional information


# **9. PHYSICAL AND CHEMICAL PROPERTIES**

## **9.1 information on basic physical and chemical properties**

<b>Appearance:</b>	Solid, odourless, light brown powder.
<b>Odour:</b>	odourless
<b>Odour threshold:</b>	Not available
<b>PH-value :</b>	Not available
<b>Alkalinity or acidity :</b>	Not available.
<b>Boiling point :</b>	Not applicable (melting point above 300°C)
<b>Melting point :</b>	> 720 K ( 447 °C)
<b>Flash point:</b>	Not applicable (inorganic substance)
<b>Evaporation rate:</b>	Not relevant
<b>Flammability :</b>	Non-flammable.
<b>Vapour pressure :</b>	Not applicable ( melting point above 300°C)
<b>Vapour density:</b>	Not applicable

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Specific gravity/Density : 3.27  
 Solubility in water : 0.004 g/L at 20°C  
 Solubility in other solvents : Not applicable (inorganic substance)  
 Partition coefficient n-octanol/water: Not applicable (inorganic substance)  
 Auto ignition temperature: Not applicable (melting point above 447°C)  
 Decomposition temperature : 380°C  
 Viscosity : Not applicable (solid at room temperature)  
 Explosive properties: Non explosive.  
 Oxidising properties : None.

#### 9.2. other information

No additional information.

### 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

Stable under circumstances as advised in section 7.

#### 10.2 Chemical stability

Substance is stable

#### 10.3 Possibility of hazardous reactions

Do not mix with acids

#### 10.4 Conditions to avoid

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#### 10.5 Incompatible materials

Do not mix with acids.


#### 10.6. Hazardous decomposition products

CO<sub>2</sub>

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Endpoint	Route	Dose descriptor or qualitative effect characterisation; test type
Acute toxicity	oral	no adverse effect observed (LD50): 2000mg/kg bw
Acute toxicity	dermal	no study available
Acute toxicity	inhalation	no adverse effect observed (LC50): 5000mg/m <sup>3</sup>


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Irritation / Corrosivity	skin	no adverse effect observed (not irritating)
Irritation / Corrosivity	eye	no adverse effect observed (not irritating)
Sensitisation	skin	no adverse effect observed (not sensitising)
Sensitisation	resp. tract	no study available
Repeated dose toxicity	oral	no study available
Repeated dose toxicity	dermal (systemic effects)	no study available
Repeated dose toxicity	dermal (local effects)	no study available
Repeated dose toxicity	inhalation (systemic effects)	no study available
Repeated dose toxicity	inhalation (local effects)	no study available
Mutagenicity	in vitro / in vivo	In vitro: no adverse effect observed (negative) In vivo: no adverse effect observed (negative)
Carcinogenicity	oral	no study available
Carcinogenicity	dermal	no study available
Carcinogenicity	inhalation	no study available
Reproductive toxicity: effects on fertility	oral	no study available
Reproductive toxicity: effects on fertility	dermal	no study available
Reproductive toxicity: effects on fertility	inhalation	no adverse effect observed (NOAEC): 20mg/m <sup>3</sup> (chronic; rat [common rodent species])
Reproductive toxicity: developmental toxicity	oral	no study available
Reproductive toxicity: developmental toxicity	dermal	adverse effect observed (NOAEL): 200mg/kg bw/day (subacute; mouse [common rodent species])
Reproductive toxicity: developmental toxicity	inhalation	adverse effect observed (NOAEC): 5mg/m <sup>3</sup> (subacute; rat [common rodent species])

## 12. ECOLOGICAL INFORMATION

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Hazard assessment conclusion for the environment

Compartment	Hazard conclusion	Remarks/Justification
Freshwater	PNEC aqua (freshwater): 0.008mg/L Intermittent releases: 0.011mg/L	Assessment factor: 50 Extrapolation method: assessment factor <b>PNEC intermittent release hazard assessment conclusion:</b> <b>PNEC intermittent release assessment factor:</b> <b>PNEC intermittent release extrapolation method:</b>
Marine water	PNEC aqua (marine water): 0.001mg/L Intermittent releases:	Assessment factor: 500 Extrapolation method: assessment factor
Sediments (freshwater)	PNEC sediment (freshwater): 8.18mg/kg sediment dw	Assessment factor: 50 Extrapolation method: assessment factor
Sediments (marine water)	PNEC sediment (marine water): 0.81mg/kg sediment dw	Assessment factor: 500 Extrapolation method: assessment factor
Sewage treatment plant	PNEC STP: 100mg/L	Assessment factor: 10 Extrapolation method:
Soil	PNEC soil: 8.15mg/kg soil dw	Assessment factor: 50 Extrapolation method: assessment factor
Air	no hazard identified:	
Secondary poisoning	no or insufficient data available at present:	It is not possible to derive this, since it would require knowledge of the reference value for Mn in the diet. Assigning a value to this is difficult due to the complex nature of the homeostatic mechanism via the oral route.

Based on all available data, the test substance does not have to be classified for the (aquatic) environment as an acute (short-term) and long-term aquatic hazard according to the CLP Regulation (Regulation 1272/2008).

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

Not applicable (inorganic substance)

### **13. DISPOSAL CONSIDERATIONS**


**Product/packing :**

Observe all federal, state and local environmental regulations.  
See directives 75/442/EEC and 2006/12/EC.

### **14. TRANSPORT INFORMATION**

Not classified as hazardous goods.

### **15. REGULATORY INFORMATION**

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### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### State regulations

Observe all federal, state and local regulations.

#### Water hazard class :

No additional information

#### additional regulations and restrictions:

REACH regulation

### **15.2 Chemical Safety report**

A Chemical Safety Assessment has been carried out

## **16. OTHER INFORMATION**

#### relevant H& R Phrases

n.a.

#### **Consulted literature:**

**Version :** - Nr. 3.00 of 06.06.2018. (Replaces all preceding versions.)

**Changes per section compared to last version :**

according to latest standard after REACH-registration

**Name of composer and manager in charge :** Mr W. van Loon.

**Printing date :** 06-06-2018

#### Used abbreviations

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 : International Air Transport Association

ICAO: International Civil Aviation Organization

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