



# Material Safety Data Sheet

According to EC Regulation 1907/2006

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

### Identification of the substance or preparation

MSDS Ref. No.: 3107.01.42  
 Product name: Greenmaster Liquid Iron Effect

### Use of the Substance/Preparation

Recommended use: Liquid concentrate.

Company/Undertaking Identification • Scotts UK Professional, Paper Mill Lane, Bramford, Ipswich, Suffolk IP8 4BZ United Kingdom

Emergency telephone number: • ++44 (0) 1865 407333 (24h)

Email: INFO-MSDS@Scotts.com

## 2. HAZARDS IDENTIFICATION

### Classification

The product is non-dangerous in accordance with Directive 1999/45/EC

### Most important hazards

None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances known to be hazardous to health in concentrations which need to be taken into account

Components	CAS-No	Weight %	EC-No.	Classification
Sulfuric acid	7664-93-9	1 - 5%	016-020-00-8	C;R35
Iron sulphate, FeSO <sub>4</sub> +1H <sub>2</sub> O	7720-78-7	10 - 25%	231-753-5	Xn;R22
Manganese sulphate, MnSO <sub>4</sub>	7785-87-7	< 1%	232-08-99	N;R51/53 Xn;R48/20/22

NE = Non-Established

***For the full text of the R phrases mentioned in this Section, see Section 16***

#### 4. FIRST AID MEASURES

<b>General advice:</b>	If you feel unwell, seek medical advice (show the label where possible).
<b>Ingestion:</b>	Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Consult a physician if necessary.
<b>Inhalation:</b>	Not applicable.
<b>Skin contact:</b>	If a person feels unwell or symptoms of skin irritation appear, consult a physician. Wash hands and exposed skin after use / handling.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

#### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**

The product itself does not burn. Coordinate fire extinguishing measures to fire in surrounding area.

**Unsuitable extinguishing media:**

Not applicable

**Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases:**

Danger of toxic gases in smoke in case of fire

**Special protective equipment for firefighters:**

Standard procedure for chemical fires.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Wear personal protective equipment.

**Environmental precautions:**

Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up:**

Wipe up with absorbent material (e.g. cloth, fleece). Take up mechanically and collect in suitable container for disposal. Do not use flammable material (wood shavings) for liquid absorption.

#### 7. HANDLING AND STORAGE

**Handling:****Technical measures/precautions:**

No special technical protective measures required.

**Safe handling advice:**

No information available

**Storage:**

**Technical measures/storage conditions:** Store in original container. Keep at temperatures above 0 °C. Keep away from food, drink and animal feeding stuffs. In crystalline form, enhances combustibility of other substances. Keep from drying out. Protect from contamination.

**Incompatible products:** No information available

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures to reduce exposure:** Ensure adequate ventilation.

### Occupational exposure controls

#### Personal protective equipment

<b>Respiratory protection:</b>	Not required.
<b>Hand protection:</b>	Protective gloves.
<b>Eye/face protection</b>	Safety glasses. Eye wash bottle with pure water.
<b>Skin and body protection:</b>	Wear suitable protective clothing.
<b>Hygiene measures</b>	When using, do not eat, drink or smoke. General industrial hygiene practice. Avoid contact with skin and eyes.

### Exposure limit values

#### *Sulfuric acid*

Belgium - 8 Hr VLE	1 mg/m <sup>3</sup> TWA
Czech Republic OEL	= 1 mg/m <sup>3</sup> TWA
Finland - Occupational Exposure Limits - 8 hour	0.2 mg/m <sup>3</sup> TWA
France - Valeurs Limites d'exposition (VLE)	3 mg/m <sup>3</sup> VLCT
France INRS (VME)	1 mg/m <sup>3</sup> VME
Germany (DFG) - MAK	0.1 mg/m <sup>3</sup> MAK
Norway - 8 h:	0.1 mg/m <sup>3</sup> TWA
	0.2 mg/m <sup>3</sup> TWA
Portugal - TWAs	0.2 mg/m <sup>3</sup> TWA
Spain - Valores Limite Ambientales - VLE	1 mg/m <sup>3</sup> VLA-ED
Sweden - OEL - 8 Hour	1 mg/m <sup>3</sup> LLV

#### *Iron sulphate, FeSO<sub>4</sub>+1H<sub>2</sub>O*

Belgium - 8 Hr VLE	1 mg/m <sup>3</sup>
Finland - Occupational Exposure Limits - 8 hour	1 mg/m <sup>3</sup>
Netherlands - OEL - MACs:	1 mg/m <sup>3</sup>
Norway - 8 h:	0.01 mg/m <sup>3</sup>
Portugal - TWAs	1 mg/m <sup>3</sup> TWA
Spain - Valores Limite Ambientales - VLE	1 mg/m <sup>3</sup> VLA-ED
UK EH40 WEL:	LTEL (8 hr TWA) 1 mg/m <sup>3</sup>
	STEL (15 min) 2mg/m <sup>3</sup>

#### *Manganese sulphate, MnSO<sub>4</sub>*

Belgium - 8 Hr VLE	0.2 mg/m <sup>3</sup>
Czech Republic OEL	= 1 mg/m <sup>3</sup> TWA
Finland - Occupational Exposure Limits - 8 hour	0.5 mg/m <sup>3</sup>
Germany TRGS900:	0.5 mg/m <sup>3</sup> TWA
Germany (DFG) - MAK	0.5 mg/m <sup>3</sup> MAK
Netherlands - OEL - MACs:	1 mg/m <sup>3</sup>
Norway - 8 h:	2.5 mg/m <sup>3</sup>

Portugal - TWAs  
Spain - Valores Limite Ambientales - VLE  
Sweden - OEL - 8 Hour

0.2 mg/m<sup>3</sup> TWA  
0.2 mg/m<sup>3</sup> VLA-ED  
0.1 mg/m<sup>3</sup> LLV  
0.2 mg/m<sup>3</sup> LLV  
5 mg/m<sup>3</sup>

UK EH40 WEL:

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General Information

**Physical State:** Liquid  
**Appearance:** Clear  
**Color:** Green  
**Odor:** Not significant

### Important Health Safety and Environmental Information

**Boiling point/range:** 105 (°C)  
**Density:** 1.23 - 1.25 g/cm<sup>3</sup>

### Other information

**pH:** 3 - 4

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions.

**Conditions to avoid:** Do not allow solution to dry out. Prevent uncontrolled heating.

**Materials to avoid:** Strong bases. Galvanized container (corrosion). Soaking of flammable material (fire risk after drying).

**Hazardous decomposition products:** No decomposition if stored normally

## 11. TOXICOLOGICAL INFORMATION

### Component information

*Iron sulphate, FeSO<sub>4</sub>+1H<sub>2</sub>O*  
**LD50/oral/rat =** 1389 mg/kg

*Manganese sulphate, MnSO<sub>4</sub>*  
**LD50/oral/rat =** 9 g/kg

**Other information on acute toxicity:**  
No information available

### Product information

**Local effects**

<b>Skin effects:</b>	May cause skin irritation in susceptible persons
<b>Eye effects:</b>	May cause eye irritation with susceptible persons
<b>Inhalation:</b>	May cause sensitization by inhalation
<b>Ingestion:</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

**12. ECOLOGICAL INFORMATION****Product information**

<b>Aquatic toxicity:</b>	Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.
<b>Water Endangering Class (WGK):</b>	1 (Scotts classification )

**Component information***Iron sulphate, FeSO<sub>4</sub>+1H<sub>2</sub>O***Ecotoxicity effects**

EC50/48h/daphnia = >100mg/l  
LC50/96h/rainbow trout = >72.5mg/l (6d)  
EC50/72h/algae = 22mg/l

*Manganese sulphate, MnSO<sub>4</sub>***Ecotoxicity effects**

EC50/48h/daphnia => 100 mg/l

Does not bioaccumulate

**13. DISPOSAL CONSIDERATIONS**

<b>Waste Disposal Methods:</b>	Dispose of in accordance with local regulations.
<b>Contaminated packaging:</b>	Rinse empty containers with water and use the rinse-water to prepare the working solution. Can be offered for recycling, re-conditioning or puncture.

**14. TRANSPORT INFORMATION****Product information**

**Physical State:** Liquid

**ADR/RID**

**UN-No:** Not classified for transport

**IATA**

**UN-No:** Not classified for transport

**IMO / IMDG**

**UN-No:** Not classified for transport

## 15. REGULATORY INFORMATION

**Indication of danger:**

This product does not have to be classified according to the EU regulations.

**S -phrase(s)**

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

## 16. OTHER INFORMATION

**Text of R Phrases mentioned in Section 3**

R22 - Harmful if swallowed.

R35 - Causes severe burns.

R36 - Irritating to eyes.

R48/20/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Reason for revision:**

\*\*\* Indicates changes since the last revision. This version replaces all previous versions

**Prepared by:**

Regulatory Affairs Department.

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**End of Safety Data Sheet**