

Evolution<sup>2</sup> 12+0+9 is a Mini-granular Phosphate-free compound fertilizer for outfield and fairway use. The balanced NK analysis promotes wear-resistant, drought-resistant and disease-resistant turf.

How to apply	Apply evenly avoiding overlapped or missed areas, using a suitable calibrated distributor or by hand. If no rain falls during the 48 hours after application, irrigate the treated area thoroughly. Do not apply in frosty weather or hot, dry conditions.
Rate to apply	Apply at a rate of 35 -50g per sq. m Area treated by a 20kg bag – 400 - 571sq.m

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

### Identification of the substance or preparation

**Product name:** Evolution 12-0-9

### Use of the Substance/Preparation

**Recommended use:** For use only as a horticultural turf fertilizer.

**Company/Undertaking Identification** See address on the bag

## 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

### **Chemical nature of the preparation**

Components	CAS-No	Weight %	EC-No.	Classification
Iron sulphate, FeSO <sub>4</sub> +1H <sub>2</sub> O	7720-78-7	1 - 5%	231-753-5	Xn;R22

Components	CAS-No	Weight %	EC-No.	Classification
Magnesite, Mg(CO <sub>3</sub> ) <sub>2</sub>	546-93-0	1 - 5%	208-915-9	NE
Talc	14807-96-6	1 - 5%	N.E.	NE

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>	Rinse mouth. If symptoms persist, call a physician.
<b>Inhalation:</b>	Move to fresh air.
<b>Skin contact:</b>	Wash off immediately with soap and plenty of water.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

#### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**

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:**

Use personal protective equipment. Self-contained breathing apparatus and suitable protective clothing.

**Specific methods:**

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Use personal protective equipment.

**Environmental precautions:**

Do not contaminate water. Prevent product from entering drains.

**Methods for cleaning up:**

Avoid dust formation. Sweep up and shovel into suitable containers for disposal.

## 7. HANDLING AND STORAGE

### Handling:

#### Technical measures/precautions:

Avoid dust formation. Ensure adequate ventilation.

#### Safe handling advice:

Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Wash hands and exposed skin after use / handling.

### Storage:

#### Technical measures/storage conditions:

Store in original container. Keep in a dry, cool and well-ventilated place.

#### Incompatible products:

No information available

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Engineering measures to reduce exposure:

Ensure adequate ventilation.

### Occupational exposure controls

#### Personal protective equipment

##### Respiratory protection:

No information available

##### Hand protection:

Protective gloves. Nitrile rubber.

##### Eye/face protection

Safety glasses.

##### Skin and body protection:

Lightweight protective clothing.

##### Hygiene measures

General industrial hygiene practice.

### Exposure limit values

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

Belgium - 8 Hr VLE  
Finland - Occupational Exposure Limits - 8 hour  
Netherlands - OEL - MACs:  
Norway - 8 h:  
Portugal - TWAs  
Spain - Valores Limite Ambientales - VLE  
UK EH40 WEL:

1 mg/m<sup>3</sup>  
1 mg/m<sup>3</sup>  
1 mg/m<sup>3</sup>  
0.01 mg/m<sup>3</sup>  
1 mg/m<sup>3</sup> TWA  
1 mg/m<sup>3</sup> VLA-ED  
LTEL (8 hr TWA) 1 mg/m<sup>3</sup>  
STEL (15 min) 2mg/m<sup>3</sup>

#### *Magnesite, Mg(CO<sub>3</sub>)<sub>2</sub>*

Belgium - 8 Hr VLE  
France INRS (VME)  
Spain - Valores Limite Ambientales - VLE  
UK EH40 WEL:

10 mg/m<sup>3</sup> TWA  
10 mg/m<sup>3</sup> VME  
10 mg/m<sup>3</sup> VLA-ED  
LTEL (8hr TWA) 10mg/m<sup>3</sup>

#### *Talc*

Belgium - 8 Hr VLE  
Czech Republic OEL  
  
Finland - Occupational Exposure Limits - 8 hour  
  
Germany TRGS900:  
Netherlands - OEL - MACs:  
Portugal - TWAs  
Spain - Valores Limite Ambientales - VLE

2 mg/m<sup>3</sup> TWA  
= 10 mg/m<sup>3</sup> TWA  
= 2.0 mg/m<sup>3</sup> TWA  
0.5 fibers/cm<sup>3</sup> TWA  
5 mg/m<sup>3</sup> TWA  
2 A mg/m<sup>3</sup>  
0.25 mg/m<sup>3</sup> TWA  
2 mg/m<sup>3</sup> TWA  
2 mg/m<sup>3</sup> VLA-ED

Sweden - OEL - 8 Hour

1 mg/m<sup>3</sup> LLV

UK EH40 WEL:

2 mg/m<sup>3</sup> LLV

1 mg/m<sup>3</sup> TWA

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General Information

<b>Physical State:</b>	Solid
<b>Appearance:</b>	Granular
<b>Color:</b>	No information available
<b>Odor:</b>	No information available

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Conditions to avoid:</b>	None known.
<b>Materials to avoid:</b>	None known.
<b>Hazardous decomposition products:</b>	No decomposition if stored normally

## 11. TOXICOLOGICAL INFORMATION

### Component information

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

### Product information

#### Local effects

<b>Skin effects:</b>	No information available.
<b>Eye effects:</b>	No information available.
<b>Inhalation:</b>	No information available.
<b>Ingestion:</b>	No information available.

## 12. ECOLOGICAL INFORMATION

### Product information

**Aquatic toxicity:**

No information available.

**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

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Methods:**

Do not empty into drains. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with local regulations and national regulations.

**Contaminated packaging:**

Do not re-use container for any other purpose and dispose of safely. .

**14. TRANSPORT INFORMATION**

**Product information**

**Physical State:**

Solid

**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:**

Not dangerous.

To avoid risks to man and the environment, comply with the instructions for use.

**Registration number UK/Eire**

Not applicable

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

R22 - Harmful if swallowed.

**Declaration for 12+0+9+Fe:**

EC FERTILISER

NK Fertiliser 12-9 with Iron (Fe)

Nitrogen (N) total	12.0%
Ammoniacal nitrogen (N)	12.0 %
Potassium oxide (K <sub>2</sub> O) soluble in water	9.0% (7.5% K)
Iron total (Fe)	1.00 %