

SAFETY DATA SHEET



GREENFORCE LAWN FEED, WEED & MOSSKILLER

Compilation date: 23/06/2015

Revision No: 1

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

1.1 Product identifier

Product Name: GreenForce Lawn Feed, Weed & Mosskiller

Product Number(s):

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

Lawn Weedkiller and feed

1.3 Details of the supplier of the safety data sheet

Agrichem (International) Limited,

Industrial Estate, Station Road, Whittlesey,

Cambs. PE7 2EY, United Kingdom

Tel: 01733-204019

Fax: 01733-204162

Email: admin@agrichem.co.uk

1.4 Emergency telephone number

Emergency tel: 01733-204019

Section 2: Hazards Identification

2.1 Classification according to Regulation (EC) 1272/2008 [EU-GHS/CLP]

Eye Irrit. 2: H319; Aquatic Chronic 3: H412

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP):



Hazard pictogram:

GHS07: Irritant

Signal words:

Warning

Hazard statements:

H319: Causes serious eye irritation

H412: Harmful to aquatic life with long lasting effects

Precautionary statements:

P264: Wash hands thoroughly after handling

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

P501: Dispose of contents/container to an approved waste

disposal contractor or collection site except for empty

clean containers which can be disposed of as non-hazardous

waste

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P101: If medical advice is needed, have product container or label at hand
P102: Keep out of reach of children
P103: Read label before use

2.3 Other hazards

Classification has been determined from tests on the product as supplied

Section 3: Composition/information on ingredients

3.1 Substances

Not available

3.2 Mixtures

Name	No.	Classification	% Wt.
Iron (II) Sulfate Heptahydrate	CAS No: 7720-78-7 EC No: 231-753-5	Skin Irrit. 2: H315; Eye Irrit. 2: H319; Acute Tox. 4: H302; Skin Sens. 1: H317	10-30%
Mecoprop-P and its Salts	CAS No: 66423-05-0 EC No: 240-539-0	Eye Dam. 1: H318; Acute Tox. 4: H302; Aquatic Chronic 2: H411	<1%
Dicamba (ISO)	CAS No: 1918-00-9 EC No: 217-635-6	Eye Dam. 1: H318; Acute Tox. 4: H302; Aquatic Chronic 2; H411	<1%
Potassium Hydroxide	CAS No: 1310-58-3 EC No: 215-181-3	Skin Corr. 1A: H314; Acute Tox. 4: H302	<1%
Calcium bis (dihydrogen orthophosphate) (Superphosphate (SSP))	CAS No: 7758-23-8 EINECS: 231-837-1	Eye Dam. 1: H318	<10%

Section 4: First Aid Measures

4.1 Description of First Aid Measures

Eye Contact: If substance has got into the eyes, immediately wash out with plenty of water for at least 10 minutes maintaining eyelids open. Protect unharmed eye. Take care not to wash the chemical from one eye into the other. Obtain medical attention immediately. (Show this Safety Data Sheet)

Skin Contact: Remove contaminated clothing immediately. If skin contamination occurs wash immediately with plenty of clean, gently flowing water for at least 10 minutes. Repeat skin decontamination process until all signs of chemicals have gone. Obtain medical attention immediately. (Show this Safety Data Sheet)

Ingestion: If ingestion is suspected, obtain medical attention immediately. (Show this Safety Data Sheet)

Inhalation: Move to fresh air. If there is breathing difficulty or coughing, keep patient

at rest seated in position of maximum comfort. Obtain medical attention immediately. (Show this Safety Data Sheet)

- 4.2 Most important symptoms and effects, both acute and delayed**
The most important known symptoms and effects are described in Section 2
- 4.3 Indication of any immediate medical attention and special treatment needed**
No data available

Section 5: Firefighting Measures

- 5.1 Extinguishing media**
Extinguish with carbon dioxide, dry chemical, foam or water spray
- 5.2 Special hazards arising from the substance or mixture**
In case of fire, toxic fumes and poisonous gases may be released
- 5.3 Advice for firefighters**
Wear self-contained breathing apparatus, suitable gloves, safety boots and eye/face protection

Section 6: Accidental Release Measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
Wear appropriate protective clothing and eye protection
- 6.2 Environmental precautions**
Do not allow product to enter drains or water courses
- 6.3 Methods and material for containment and cleaning up**
Sweep up and place in suitable labelled containers and dispose as hazardous waste where appropriate
- 6.4 Reference to other sections**
Refer to Sections 8 and 13

Section 7: Handling and Storage

- 7.1 Precautions for safe handling**
When using, do not eat, drink or smoke. Avoid contact with eyes and skin. Provide adequate ventilation. Protect the product against moisture
- 7.2 Conditions for safe storage, including any incompatibilities**
Keep bags tightly closed in a dry, cool and well-ventilated place to which children do not have access. Keep away from food, drink and animal feedingstuff
- 7.3 Specific end use(s)**
Not Available

Section 8: Exposure Controls/Personal Protection

- 8.1 Control Parameters**
Occupational Exposure Limits
- Iron (II) Sulfate Heptahydrate**
Long-term exposure limit (8-hour TWA): WEL: 1 mg/m³
Short-term exposure limit (15-minute): WEL: 2 mg/m³
- Potassium Hydroxide**
Long-term exposure limit (8-hour TWA): WEL: No data available

Short-term exposure limit (15-minute): WEL: 2 mg/m³

WEL = Workplace Exposure Limit

CMPP-PK 600g/l

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	10mg/m ³	20 mg/m ³	-	-

DNEL/PNEC Values: No data available

Dicamba

WEL (8hr TWA) 10 mg/m³

Potassium Hydroxide

WEL (short term value) 2 mg/m³

8.2 Exposure Controls

Engineering Controls:

Provide adequate general and local exhaust ventilation

Eye/Face Protection:

Wear tightly fitting safety goggles conforming to EN 166

Hand Protection:

Wear suitable protective gloves conforming to EN 374. Seek recommendations from manufacturer or supplier. After using gloves the hands should be washed and thoroughly dried and a suitable moisturiser applied

Other Skin and Body Protection:

Wear appropriate clothing to prevent any possibility of skin contact

Hygiene Measures:

Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke

Respiratory Protection:

If ventilation is insufficient suitable respiratory protection must be provided. Seek advice and recommendations off the manufacturer or supplier of equipment

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Brown/Beige Granule
Odour:	Slight
pH:	No data available
Boiling Point:	No data available
Melting Point/Range:	No data available
Decomposition Temp.:	No data available
Flash Point:	No data available
Auto Ignition Temp.:	No data available
Flammability (solid, gas):	No data available
Explosive Properties:	None known
Oxidising Properties:	None known
Vapour Pressure:	No data available
Bulk Density:	No data available

Solubility:	Water Solubility:	Soluble
Partition Coefficient:	Fat/Solvent Solubility:	No data available
	(CMPP-P)	Log P _{ow} = -0.391
	(Ferrous Sulphate)	Log P _{ow} = <3 (n-Octanol/Water)
	(Dicamba)	Log P _{ow} = 0.7 (Water), Log P _{ow} = -1.9 (Buffer pH 7)

9.2 Other information

Not Available

Section 10: Stability and Reactivity

10.1 Reactivity

Stable under recommended storage conditions

10.2 Chemical stability

Stable under normal conditions of storage and use

10.3 Possibility of hazardous reactions

None known

10.4 Conditions to avoid

Protect granules from moisture

10.5 Incompatible materials

Avoid strong acids, strong bases and oxidising agents. Avoid heat flames and other sources of ignition

10.6 Hazardous decomposition products

Formation of toxic fumes is possible during heating or in case of fire

Section 11: Toxicological Information

11.1 Information on toxicological effects

Ferrous Sulphate

Acute Toxicity:

Oral: Large doses in humans may cause severe liver damage. Children are more susceptible than adults to iron poisoning
LD₅₀ Oral rat (anhydrous ferrous sulphate) 319 mg/kg

Inhalation: No data available

Skin: No data available

Corrosivity/Irritation:

Eye: May cause eye irritation

Skin: May cause skin irritation

Sensitisation:

Skin: No data available

Repeated Dose Toxicity: No standard test data available, however Ferrous Sulphate has been used as an iron supplement for humans for many years

Mutagenicity: Did not show mutagenic effects in animal experiments

Carcinogenicity: Not believed to be a carcinogen

Reproductive Toxicity: No data available

CMPP-P K 600 g/l AI

Acute Toxicity: IHL Rat LC₅₀ > 5.4 mg/l
ORL Rat LD₅₀ 500-2000 mg/kg
SKN Rat LD₅₀ > 2000 ml/kg

Hazardous Ingredients: Potassium Hydroxide: ORL Rat LD₅₀ 273 mg/kg

Routes of Exposure: Refer to Section 4 of SDS for routes of exposure and corresponding symptoms.

Dicamba

Acute Oral Toxicity: LD₅₀: 1879 mg/kg (Rat) OECD 401
Acute Dermal Toxicity: LD₅₀: > 2000 mg/kg (Rat) OECD 402
Acute Inhalation Toxicity: LC₅₀: 4.46 mg/l (Rat; 4 h; male) OECD 403
Acute Skin Irritation: Rabbit: mildly irritating OECD 404
Acute Eye Irritation: Rabbit: severely irritating OECD 405

Skin Sensitization: Not sensitizing (Guinea Pig; assessment according to 2001/59/EC; Maximization test) OECD 406
Mutagenic/Carcinogenic/ Teratogenicity/Reproductive/STOT: Did not show effects in animal experiments

Superphosphate (SSP) and Superphosphates (TSP)

Acute Toxicity

LD/LC₅₀ Values relevant for classification:

No reliable study with this product is present
 This study is conducted on an analogous substance (read-across)
 No classification is necessary

7783-28-0 Diammonium Hydrogenorthophosphate		
Oral	LD ₅₀	>2000 mg/kg (Rat) (OECD 425) not classified
Dermal	LD ₅₀	>2000 mg/kg (Rat) (OECD 402) not classified
Inhalative	LC ₅₀ /4h	>5,0 mg/l (Rat) (OECD 403)

Primary Irritant Effect:

Effect Species Method		
7722-76-1 Ammonium Dihydrogenorthophosphate		
Irritation of Skin	OECD 404	Not irritating (Rabbit)
8011-76-5 Superphosphate (SSP)		
Irritation of Eyes	OECD 405, EC B.5	Irritating (Rabbit)
7783-28-0 Diammonium Hydrogenorthophosphate		
Sensitisation	OECD 429, EC B.42	Not sensitising (Mouse)

Toxicokinetics, Metabolism and Distribution:

This product dissociates into calcium, sulfate and phosphate ions, which are normal body and nutritional components

Repeated Dose Toxicity		
65996-95-4 Superphosphates, concd		
Oral	NOAEL	250 mg/kg bw/day (Rat) (OECD 422) Should not be classified for general toxicity

CMR Effects (Carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity:

Negative (according to OECD 471, CAS 65996-95-4 Superphosphate concentrated)
 Negative (according to OECD 473, CAS 8011-76-5 single Superphosphate)
 Negative (according to OECD 476, CAS 7722-76-1 ammonium dihydrogenorthophosphate)

Carcinogenicity:

No data available
 (no carcinogenicity study needs to be performed as this substance is not genotoxic)

Toxicity for Reproduction:

No classification is necessary

Reproduction Toxicity: NOAEL: 750 mg/kg bw/day; Rat; Oral

Development Toxicity: NOAEL: 750 mg/kg bw/day; Rat; Oral
(OECD 422, CAS 65996-95-4 Superphosphate, concentrated)

Section 12: Ecological Information**Ferrous Sulphate****12.1 Ecotoxicity**

Rainbow Trout (*Onchorhynchus mykiss*) 96h LC₅₀ (OECD Test Guideline 203) 86.2 mg/l

Water Flea (*Daphnia Magna*) 48h EC₅₀ (OECD Test Guideline 202) 1-10 mg/l

12.2 Persistence & Degradability

Method for the determination of biodegradability are not applicable to inorganic substances

12.3 Bioaccumulative Potential

Octanol/water partition coefficient (Pow) indicates that ferrous sulphate has a very low bioaccumulative potential

12.4 Mobility in Soil

No data available

12.5 Results of PBT and VPvB Assessment

Iron Sulphate is an inorganic substance, thus a PBT and vPvB Assessment is not required

12.6 Other Adverse Effects

None known

CMPP-P K 600 g/l AI**12.1 Ecotoxicity**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	10mg/m ³	20 mg/m ³	-	-

DNEL/PNEC Values: No data available

12.2 Persistence & Degradability

Rapidly biodegradable

12.3 Bioaccumulative Potential

Potential for bioaccumulation is low based on Log Pow

12.4 Mobility in Soil

Fairly mobile but rapidly degraded in aerobic soils

12.5 Results of PBT and VPvB Assessment

This product is not identified as a PBT and vPvB substance

12.6 Other Adverse Effects

Lemna gibba 14 day EC₅₀ 1.6 mg/l

Dicamba

12.1 Toxicity to Fish: LC₅₀ *Onchorhynchus mykiss* (Rainbow Trout), 135.4 mg/l, 96h

Toxicity to Aquatic Invertebrates: EC₅₀ *Daphnia magna* (Water Flea), 110.7 mg/l, 48h

Toxicity to Aquatic Plants: EbC₅₀ *Anabaena flos-aquae* (Bluegreen Algae), 43.1 mg/l, 72h
ErC₅₀ *Anabaena flos-aquae* (Bluegreen Algae), 44.9 mg/l, 72h

NOEC *Lemna gibba* (Duckweed), 0.25 mg/l, 14d

Toxicity to Bacteria: IC₅₀ Activated Sewage Sludge, > 500 mg/l, 3h

12.2 Persistence & Degradability

Biodegradability: Not readily biodegradable
Stability in Water: Degradation half life: 35 - 46d. Not persistent in water
Stability in Soil: Degradation half life: 1.4 - 11d. Not persistent in soil

12.3 Bioaccumulative Potential

Dicamba has low potential to bioaccumulation

12.4 Mobility in Soil

Dicamba has very high mobility in soil

12.5 Results of PBT and vPvB Assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)

This substance is not considered to be very persistent nor very bioaccumulating (vPvB)

12.6 Other Adverse Effects

None known

Superphosphate (SSP) and Superphosphates concd (TSP)

- 12.1 **Aquatic Toxicity:** Inorganic phosphates are not considered to be toxic to aquatic species
- | | |
|-------------------------------------------------|-------------------------------------------------------------------------------------|
| Ammonium dihydrogenorthophosphate:
7722-76-1 | LC ₅₀ /96h (static), >85.9 mg/l (Rainbow Trout)
(OECD 203) freshwater |
| Superphosphate (SSP):
8011-76-5 | LC ₅₀ /72h, 1790 mg/l, (Daphnia carinata)
freshwater |
| Superphosphates, concd:
65996-95-4 | EC ₅₀ /72h (static), >87.6 mg/l (algae)
(OECD 201) NOEC ≥87.6 mg/l |

12.2 Persistence & Degradability

The substance is inorganic, therefore no biodegradation tests are applicable. This product dissociates into Ca⁺², sulfate and phosphate ions, which cannot be further degraded

12.3 Bioaccumulative Potential

Does not accumulate in organisms. This substance is highly water soluble and dissociating

12.4 Mobility in Soil

Low potential for adsorption (based on substance properties). This substance is highly water soluble and dissociating

12.5 Results of PBT and vPvB Assessment

PBT: No assessment is required for inorganic substances

vPvB: No assessment is required for inorganic substances

12.6 Other Adverse Effects

Behaviour in Sewage Processing Plants: EC₅₀/3h: >100 mg/l (activated sludge)
(OECD 209, EC C.11)

Remark: Inorganic phosphates are not considered to be toxic to sewage treatment plant microorganisms

General Notes: According to the criteria of the EU-classification and labelling "Dangerous for the environment" (93/21/EWG) the substance/the product has to be classified as non-hazardous for the environment

Section 13: Disposal Considerations

13.1. Waste treatment methods

Product Disposal: Dispose of according to local and national regulations

Container Disposal: Dispose of according to local and national regulations

Section 14: Transport Information

Non hazardous for transport

- 14.1 UN number**
- 14.2 UN Proper shipping Name**
- 14.3 Transport Hazard Class(es)**
- 14.4 Packing Group**
- 14.5 Environmental Hazards**
- 14.6 Special Precautions for User**
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Section 15: Regulatory Information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
This data sheet complies with the requirements of Regulation (EC) No. 1907/2006
- 15.2 Chemical safety assessment**
A chemical safety assessment was not carried out

Section 16: Other information

Text of Phrases mentioned in Sections 2 and 3:

H-Statements

- H290** May be corrosive to metals
- H302** Harmful if swallowed
- H314** Causes severe skin burns and eye damage
- H315** Causes skin irritation
- H318** Causes serious eye damage
- H317** May cause an allergic skin reaction
- H319** Causes serious eye irritation
- H411** Toxic to aquatic life with long lasting effects
- H412** Harmful to aquatic life with long lasting effects

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, release and is not to be considered a warranty of quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text