

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

1.1. Product identifier

Product name: ROOT 66

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

Use of substance / mixture: A micronutrient fertiliser for use in agriculture and horticulture.

1.3. Details of the supplier of the safety data sheet

Company name: Headland Agrochemicals

Rectors Lane

Pentre

Deeside

Flintshire

CH5 2DH

United Kingdom

Tel: +44(0)1244 537370

Fax: +44(0)1244 532097

Email: enquiry@headlandgroup.com

1.4. Emergency telephone number

Emergency tel: +44(0)1244 537370

(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: C: R34; Xn: R48/20

Classification under CLP: Acute Tox. 4: H302; Skin Corr. 1C: H314; STOT RE 2: H373

Most important adverse effects: Causes burns. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

2.2. Label elements

Label elements under CLP:

Hazard statements: H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H373: May cause damage to organs through prolonged or repeated exposure.

Signal words: Danger

Hazard pictograms: GHS05: Corrosion

GHS07: Exclamation mark

GHS08: Health hazard

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Precautionary statements: P260: Do not breathe spray.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314: Get medical advice/attention if you feel unwell.

Label elements under CHIP:

Hazard symbols: Corrosive.



Risk phrases: R34: Causes burns.
R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Safety phrases: S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3. Other hazards

PBT: This product is not identified as a PBT substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

MANGANESE DINITRATE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
233-828-8	10377-66-9	O: R8; Xn: R22; C: R34; Xn: R48/20	Ox. Sol. 2: H272; Acute Tox. 4: H302; Skin Corr. 1C: H314; Eye Dam. 1: H318; STOT RE 2: H373; Aquatic Chronic 3: H412; -: EUH071	10-30%

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin.

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Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Corrosive. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective

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clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.
Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

8.1. DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Respiratory protection not required.

Hand protection: Impermeable gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Environmental: Refer to specific Member State legislation for requirements under Community environmental legislation.

Section 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Red-brown

Odour: Barely perceptible odour

Solubility in water: Soluble

Relative density: 1.36-1.38

pH: 3 - 4

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong reducing agents. Strong bases.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

MANGANESE DINITRATE

ORAL	RAT	LD50	>300	mg/kg
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Relevant effects for mixture:

Effect	Route	Basis
Corrosivity	OPT INH DRM	Hazardous: calculated

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Repeated dose toxicity	INH	Hazardous: calculated
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Symptoms / routes of exposure

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: Soluble in water.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT substance.

12.6. Other adverse effects

Other adverse effects: No data available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN1760

14.2. UN proper shipping name

Shipping name: CORROSIVE LIQUID, N.O.S.

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(MANGANESE DINITRATE)

14.3. Transport hazard class(es)

Transport class: 8

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk: The product is not transported in bulk tankers.

Section 15: Regulatory information

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

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and 3: EUH071: Corrosive to the respiratory tract.

H272: May intensify fire; oxidiser.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H412: Harmful to aquatic life with long lasting effects.

R8: Contact with combustible material may cause fire.

R22: Harmful if swallowed.

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R34: Causes burns.

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.