Material Safety Data Sheet
according to Regulation (EC) No. 1907/2006

Nitrophoska® special 12+12+17+2 MgO+8 S+TE

Version: 3.0
Revision Date: 27.09.2012

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name: Nitrophoska Extra
Chemical Formula: Not Applicable
Product Code: 4600000
Recommended Use: Fertiliser
Company Identification: Ravensdown Fertiliser Co-operative Limited
Address: Level 1, 32 Oxford Terrace
PO Box 1049
Christchurch
Customer Centre: 0800 100 123
National Poisons Information Centre: 0800 POISON (0800 764 766)
Emergency Telephone Number: 0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
Transport Emergency Phone: 111 - tell operator what service is needed: Fire, Ambulance, Police

2. Hazards identification

2.1 Classification of the substance or mixture

Classification(67/548/EEC,1999/45/EC)

2.2 Label elements

Labelling(REGULATION (EC) No 1272/2008)
Labelling according to EC Directives ()
Further information : Not subject to labelling in accordance with EEC Directives.

2.3 Other hazards

No particular dangers occur if the regulation/notes for storage and handling are observed.

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature : NPK - fertilizer containing: Ammonium Nitrate, ammonium salts, phosphates, salts of calcium, potassium and possibly magnesium and trace elements.

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No. EC-No. Registration</th>
<th>Classification (67/548/EEC)</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [%]</th>
</tr>
</thead>
</table>
4. First aid measures

4.1 Description of first aid measures

If inhaled: On inhalation of decomposition products: Keep person calm, have individual removed to fresh air, seek medical help. If danger of loss of consciousness, place person in recovery position and transport accordingly. Perform artificial respiration if necessary. On inhalation of fertilizer dusts: Fresh air, if necessary medical assistance.

In case of skin contact: Wash off with soap and water.

In case of eye contact: Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed: Immediately rinse mouth and then drink plenty of water, seek medical assistance.

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: When decomposing product is handled: Water (attention, larger quantities are necessary to stop the thermic decomposition)

Unsuitable extinguishing media: Sand Foam Carbon dioxide (CO2) Dry chemical

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: At temperatures above 130 °C, dangerous decomposition gases can be emitted: Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia, chloride, hydrogen chloride.

5.3 Advice for firefighters

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

Further information: Fire residues and contaminated fire extinguishing water must
6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.2 Environmental precautions

Environmental precautions: Do not let product enter drains, surface water or subsoil water. Retain and dispose of polluted washing water according to regulations.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up: Use mechanical handling equipment. Rinse off remainders with water.

6.4 Reference to other sections

7. Handling and storage

7.1 Precautions for safe handling

Advice on protection against fire and explosion: Keep away from heat and sources of ignition. Keep away from combustible materials. Do not smoke. The product is incombustible. However, it can lower the ignition temperature of combustible substances.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Protect against contamination. Protect against humidity (product is hygroscopic and tends to cake or disintegrate). Keep away from direct sunlight. Protect against heat.

Advice on common storage: When stored loosely do not mix with other fertilizers. Store well away from other substances, particularly from organic materials.

Other data: If inappropriately or improperly stored caking or disintegration possible.

7.3 Specific end use(s)

8. Exposure controls/personal protection

8.1 Control parameters

DNEL
Ammonium Nitrate: End Use: Workers
Exposure routes: Inhalation
### 4.8 Exposure limits

<table>
<thead>
<tr>
<th>Substance</th>
<th>End Use: Workers</th>
<th>Exposure route</th>
<th>Potential health effects: Specific effects</th>
<th>Exposure time: 1 d</th>
<th>Value: mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Nitrate</td>
<td>Workers</td>
<td>Skin contact</td>
<td>Specific effects</td>
<td>1</td>
<td>37.6</td>
</tr>
<tr>
<td>Ammonium Nitrate</td>
<td>Consumers</td>
<td>Ingestion</td>
<td>Specific effects</td>
<td>1</td>
<td>21.3</td>
</tr>
<tr>
<td>Ammonium Nitrate</td>
<td>Consumers</td>
<td>Inhalation</td>
<td>Specific effects</td>
<td>1</td>
<td>11.1</td>
</tr>
</tbody>
</table>

**PNEC**

<table>
<thead>
<tr>
<th>Substance</th>
<th>End Use: Consumers</th>
<th>Exposure route</th>
<th>Potential health effects: Specific effects</th>
<th>Exposure time: 1 d</th>
<th>Value: mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Nitrate</td>
<td>Consumers</td>
<td>Ingestion</td>
<td>Specific effects</td>
<td>1</td>
<td>12.8</td>
</tr>
<tr>
<td>Ammonium Nitrate</td>
<td>Consumers</td>
<td>Inhalation</td>
<td>Specific effects</td>
<td>1</td>
<td>11.1</td>
</tr>
</tbody>
</table>

**Environmental exposure controls**

- **General advice**: Do not let product enter drains, surface water or subsoil water. Retain and dispose of polluted washing water according to regulations.

### 9. Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties
Nitrophoska® special 12+12+17+2 MgO+8 S+TE

Appearance : granular
Colour : varying, according to dye or colour of the basic materials.
Odour : almost odourless
pH : ca. 5, (100 g/l, 20°C)
Water solubility : mostly soluble
Thermal decomposition : Thermal decomposition at above 130 °C., To avoid thermal decomposition, do not overheat., The product is not capable of self-sustaining progressive thermal decomposition (UN-Test S1).

9.2 Other information
Bulk density : ca. 1.100 kg/m³

10. Stability and reactivity
10.1 Reactivity
10.2 Chemical stability
10.3 Possibility of hazardous reactions
Hazardous reactions : Ammonia in contact with alkaline solutions. The formation of gaseous decomposition products builds up pressure in tightly closed containers.

10.4 Conditions to avoid
10.5 Incompatible materials
Materials to avoid : Inflammable, oxidizable substances, sourly reacting substances, alkalinely reacting substances.

10.6 Hazardous decomposition products
Hazardous decomposition products : At temperatures above 130 °C, dangerous decomposition gases can be emitted: Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia, chloride, hydrogen chloride.

11. Toxicological information
11.1 Information on toxicological effects

Product
Acute oral toxicity : LD50: > 2.000 mg/kg, rat, The product was not tested. The statement was derived from products of similar structure and composition.
Skin corrosion/irritation : Primary skin irritation/rabbit: Not irritating. (OECD-Guideline 404), Primary mucose irritation/rabbit: Not irritating. (OECD-directive 405)
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11. Toxicology

11.1 Acute oral toxicity
- LD50: > 2.950 mg/kg, rat, OECD Test Guideline 401
- LD50: > 88.8 mg/kg, No information available, Not relevant because of low vapour pressure, Not relevant because of low dust formation.

11.2 Acute inhalation toxicity
- > 88.8 mg/l, No information available, Not relevant because of low vapour pressure, Not relevant because of low dust formation.

11.3 Acute dermal toxicity
- LD50: > 5.000 mg/kg, rat, OECD Test Guideline 402
- LD50: > 5.000 mg/kg, rat, OECD Test Guideline 402

11.4 Skin corrosion/irritation
- rabbit, Result: non-irritant, OECD Test Guideline 404

11.5 Serious eye damage/eye irritation
- rabbit, Result: Irritant, OECD Test Guideline 405

11.6 Respiratory or skin sensitization
- Result: Does not cause skin sensitization.

11.7 Germ cell mutagenicity
- Genotoxicity in vitro: Result: negative, OECD Test Guideline 471

11.8 STOT - repeated exposure
- rat, Oral, Exposure time: 28 d, NOAEL: > 1.500 mg/kg
- rat, Oral, Exposure time: 52 w, NOAEL: = 256 mg/kg, OECD Test Guideline 453
- rat, by inhalation, Exposure time: 2 w, NOAEL: >= 185 mg/kg, Repeated Dose Inhalation Toxicity: 28-day or 14-day Study.

12. Ecological information

12.1 Toxicity

Product:
- Toxicity to fish: LC50: > 100 mg/l, 96 h, various species

Components:
Ammonium Nitrate:
- Toxicity to fish: LC50: > 100 mg/l, 96 h, various species
- Toxicity to daphnia and other aquatic invertebrates: EC50: 490 mg/l
- Toxicity to algae: EC50: 1.700 mg/l, other aquatic plant

12.2 Persistence and degradability

Components:
Ammonium Nitrate:
- Biodegradability: The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Components:
Ammonium Nitrate:
- Bioaccumulation:
12.4 Mobility in soil

Bioaccumulation is unlikely.

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects

**Product:**

Additional ecological information: With high probability acutely not harmful to water organisms. With proper entering of low concentrations in adapted biological purification plants, disturbances of the degrading activity of bioactive sludge are not to be expected.

13. Disposal considerations

13.1 Waste treatment methods

<table>
<thead>
<tr>
<th>Product</th>
<th>Contact manufacturer. Examine usability in agriculture.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contaminated packaging</td>
<td>Contaminated packages should be emptied as far as possible and can be recycled after thorough cleansing.</td>
</tr>
</tbody>
</table>

14. Transport information

14.1 Land transport

**ADR**

Remarks: No dangerous product according to the rules for road transport

14.2 Sea transport

**ADNR**

Remarks: No dangerous product according to the rules of barge transport

**IMDG**

Remarks: No dangerous product according to the rules of vessel transport

14.3 Air transport

**IATA-DGR**

Remarks: No dangerous product according to the rules of air transport

14.4 Special precautions for user

14.5 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

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

Other regulations: The national authority permits and storage regulations must be observed.
15.2 Chemical Safety Assessment

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R 8  Contact with combustible material may cause fire.
R36  Irritating to eyes.

Full text of H-Statements referred to under sections 2 and 3.

H272  May intensify fire; oxidiser.
H319  Causes serious eye irritation.

Further information

Other information  : Entire wording of the danger symbols and R-phrases from chapter 3:

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 a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or 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.