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1. Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier:

Vegetable Fertiliser

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

Supplied for use as a fertiliser

1.3 Details of the supplier of the safety data sheet:

Chempak Products
Thompson & Morgan
Poplar Lane
Ipswich
Suffolk
IP8 3BU

Contact: The Safety Officer

Telephone Number: 01473 588688 (Monday – Friday 8am to 5pm)

Or visit <u>www.chempak.com</u>

1.4 Emergency telephone number:

Emergency Telephone Number: 01473 588688 (Monday – Friday 8am to 5pm)

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2. Hazards identification

2.1 Classification of the substance or mixture

CLASSIFICATION according to Regulation (EC) 1272/2008 Classification, Labelling and Packaging Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

CLASSIFICATION according to Directive 1999/45/EC and statutory instrument No.716 2009 Chemicals (Hazard Information and Packaging) regulation

Not a hazardous substance or mixture according to Directive 1999/45/EC.

2.2 Label Elements

No labelling elements according to Regulation (EC) No. 1272/2008.

2.3 Other Hazards

According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified.

Mixture not classified as PBT or vPvB.

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3. Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No./ EINECS-No.	REACH number	Symbol(s)	Phrase(s)	Concentration [%]	
Ammonium nitrate	monium nitrate 6484-52-2 / 01-2119490981- Ad 229-347-8 27-0050 12 GI		According to 1272/2008: GHS03 GHS07	According to 1272/2008: Oxid. Solid 3; H272 Eye Irrit. 2; H319	10-<45	
			According to 67/548/EEC: O; OXIDISING Xi; IRRITANT	According to 67/548/EEC: R8 R36		
Disodium tetraborate pentahydrate; borax pentahydrate	12179-04-3	-	According to 1272/2008: GHS08 According to	According to 1272/2008: Repr. 1B; H360FD: C ≥ 6,5 % According to	≤2	
			67/548/EEC: T; TOXIC	67/548/EEC: Repr. Cat. 2; R60-61: C ≥ 6,5 %		

All hazard information if not displayed in section 2 or 3 is displayed in Section 16.

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4. First aid measures

4.1 Description of first aid measures

4.1.1 Inhalation

Keep patient calm, remove to fresh air and seek medical attention. If unconscious place in recovery position and seek medical advice.

4.1.2 Skin & Eye exposure

Skin: Wash off with soap and water

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes. Seek medical attention if symptoms persist or develop.

4.1.3 Ingestion

Wash out mouth with water and give water to drink. Do not induce vomiting. Seek medical attention if symptoms persist or develop.

- 4.2 Most important symptoms and effects, both acute and delayed No information specified.
- 4.3 Indication of any immediate medical attention and special treatment needed. Treat symptomatically. Subsequent observation for pneumonia and pulmonary edema.

5. Firefighting measures

5.1 Extinguishing media Water spray.

5.2 Special Hazards arising from the substance or mixture

Thermal decomposition products in case of fire: Nitrogen monoxide, nitrogen dioxide, dinitrogenoxide, ammonia.

5.3 Advice for fire-fighters

In the event of fire, wear self-contained breathing apparatus and protective suit. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Avoid dust formation.

Ensure adequate ventilation.

In case of insufficient ventilation, wear suitable respiratory equipment.

6.2 Environmental precautions

Do not empty into drains.

Retain and dispose of contaminated wash water.

6.3 Methods and material for containment and cleaning up

Clean up promptly by sweeping or vacuum. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precaution for safe handling

Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Wash hands before breaks and at the end of workday. Do not eat, drink or smoke in the workplace.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in the original container. Keep container tightly closed in a cool, well-ventilated place. Protect against: UV-radiation/sunlight, heat, moisture. (This product is hygroscopic). Keep away from sources of ignition - No smoking. Keep away from combustible material. The product itself is not combustible.

Do not store together with: Explosives, Oxidizing solids, Oxidizing liquids, Infectious substances, Radioactive substances, Food and fodder, Non-combustible toxic substances, Combustible toxic substances, peroxides, Pyrophoric Substances, Substances or mixtures which in contact with water emit flammable gases.

Do not mix with other fertilisers. Do not mix with other chemicals. Protect from contamination.

7.3 Specific end use(s)

Always read the label and product information before use.

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8. Exposure controls and personal protection

8.1 Control Parameters

Exposure limits

CAS No.	Components	ppm	mg/m³	fib/cc	Category	Origin
12179-04-3	Borates, tetra, sodium salts (Pentahydrate)	-	1		TWA (8hr)	REL

DNEL

Ammonium Nitrate: End Use: Workers

Exposure routes: Inhalation

Potential health effects: Specific effects

Exposure time: 1 d Value: 37,6 mg/m3

End Use: Workers

Exposure routes: Skin contact

Potential health effects: Specific effects

Exposure time: 1 d Value: 21,3 mg/kg

End Use: Consumers

Exposure routes: Ingestion

Potential health effects: Specific effects

Exposure time: 1 d Value: 12,8 mg/kg

End Use: Consumers

Exposure routes: Inhalation

Potential health effects: Specific effects

Exposure time: 1 d Value: 11,1 mg/m3

8.2 Exposure controls

Engineering controls:

Use local exhaust if dusting occurs. Natural ventilation is adequate in absence of dusts.

Personal protective equipment:

Dust safety masks recommended where working powder concentration is more than 10mg/m3. Suitable respiratory protective equipment: particulates filter device (DIN EN 143). Type: P1 or N95-N100 particle filter. Gloves are recommended. Safety glasses with side-shields. Do not wear contact lenses where this product is used. Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice.

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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance; Granular Colour; Variable Odour; Odourless

Odour threshold; Information not available

pH (at 20 °C); approx. 5 (100g/L) Melting point/freezing; Not applicable

Initial boiling point and boiling range; Not applicable

Flash point; Not applicable Evaporation rate; Not applicable

Flammability (solid, gas); The product is not flammable Upper /lower flammability or explosive limits; Not applicable

Vapour Pressure; Not applicable Vapour density; Not applicable

Specific gravity; Information not available

Solubility (ies); Soluble

Partition coefficient: n-octanol/water; Not applicable

Auto ignition temperature: Not applicable

Decomposition temperature: > 130 °C, To avoid thermal decomposition, do not overheat.

9.2 Other Information Bulk density: 1150 kg/m³

10. Stability and reactivity

10.1 Reactivity

Hazardous reactions will not occur.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions will not occur.

10.4 Conditions to avoid

Protect against: UV-radiation/sunlight, heat, moisture.

10.5 Incompatible materials

Materials to avoid: Reducing agents. Sulphur, chlorites, chloride, chlorates, hypochlorites, acidic or alkaline substances, flammable, oxidising substances, nitrites, metal salts, metal powders, herbicides, chlorinated hydrocarbons, organic compounds.

10.6 Hazardous decomposition products

Can be released in case of fire: Nitrogen oxides (NOx), ammonia.

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11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:

Product:

LD50: > 2000 mg/kg, rat

The product was not tested. The statement was derived from products of similar structure and composition.

Components:

Ammonium Nitrate:

Acute oral toxicity: LD50: > 2.950 mg/kg, rat, OECD Test Guideline 401

Acute inhalation toxicity: LC50, (4hr): > 88,8 mg/l,

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

Germ cell mutagenicity

Genotoxicity in vitro: Result: negative, OECD Test Guideline 471

STOT - repeated exposure: rat, Oral, Exposure time: 28 d, NOAEL: > 1.500 mg/kg
STOT - repeated exposure: rat, Oral, Exposure time: 52 w, NOAEL: = 256 mg/kg, OECD

Test Guideline 453

STOT - repeated exposure: rat, by inhalation, Exposure time: 2 w, NOAEL: >= 185mg/kg,

Repeated Dose Inhalation Toxicity: 28-day or 14-day Study.

Disodium tetraborate pentahydrate; borax pentahydrate:

Acute oral toxicity: LD50: 3200 - 3400 mg/kg, rat.

Acute inhalation toxicity: LC50: > 2 mg/l, rat OECD Test Guideline 403

Acute dermal toxicity: LD50: > 2000 mg/kg, rabbit

Irritation and corrosivity:

Product:

Irritant effect on the eye: Not an irritant. (OECD 405) Irritant effect on the skin: Not an irritant. (OECD 404)

Product has not been tested. The statement is derived from products of similar structure or

composition.

Ammonium nitrate:

Irritant effect on the eye: irritant. (OECD 405)

Irritant effect on the skin: Not an irritant. (OECD 404)

Disodium tetraborate pentahydrate; borax pentahydrate:

Irritant effect on the eye: irritant.

Irritant effect on the skin: Not an irritant.

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Sensitising effects:

Product is not sensitising.

Severe effects after repeated or prolonged exposure:

Ammonium nitrate:

Subacute oral toxicity: NOAEL > 1500 mg/kg (Rat, 28d) Chronic oral toxicity: NOAEL = 256 mg/kg (Rat, 52 w) Subacute inhalative toxicity: NOAEL > 185 mg/kg (Rat, 14d)

Carcinogenic/mutagenic/toxic effects for reproduction:

Ammonium nitrate:

In-vitro mutagenicity: Ames test negative. (OECD 471) Disodium tetraborate pentahydrate; borax pentahydrate:

Evidence for: In-vitro mutagenicity

Disodium tetraborate pentahydrate; borax pentahydrate:

Evidence for: In-vitro mutagenicity

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12. Ecological information

12.1 Toxicity

Components:

Ammonium Nitrate:

Toxicity to fish: LC50: > 100 mg/l, 96 h, Fish

Toxicity to crustacea: EC50: 490 mg/l

Toxicity to algae: ErC50: 1700 mg/l, Selenastrum capricornutum (green algae)

Disodium tetraborate pentahydrate; borax pentahydrate:

Toxicity to fish: LC50: 74 mg/l, 96 h, Limanda limanda Toxicity to crustacea: EC50: 242 mg/l, 24 h, Daphnia magna

Toxicity to algae: EC10: 24 mg/l, 96 h, algae

PNEC (ammonium nitrate): fresh water: 0,45 mg/l sea water: 0,045 mg/l

Limitation of exposure peaks: 4,5 mg/l

12.2 Persistence and degradability

The product acts as a fertiliser in the soil and is degraded within a few weeks.

12.3 Bioaccumulative potential

No indication of bioaccumulation potential.

12.4 Mobility in soil

Information not available

12.5 Results of PBT and vPvB

Information not available

12.6 Other adverse effects

Depending on local conditions and existing concentrations, in the case of discharge into biological sewage treatment plants, problems in the decomposition activity of activated sludge are possible. The Product is not acutely harmful with a high probability to aquatic organisms. At higher pH values, as they occur naturally in water, an increase in toxicity to aquatic organisms is expected.

13. Disposal considerations

13.1 Waste Treatment Methods

Dispose of contents/container in accordance with local and national regulations. Cleaned containers may be recycled.

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14. Transport information

14.1 UN number: Non-dangerous goods

14.2 UN proper shipping name: No information available

14.3 Transport hazard: No information available

14.4 Packing group: -

14.5 Environmental hazards: Not a marine pollutant

14.6 Special precautions for user: No Information available

14.8 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: No information available

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture. This substance/mixture is classified and labelled in accordance with Regulation EC 1272/2008, Directive 1999/45/EC, the statutory instrument No.716 2009 Chemicals (Hazard Information and Packaging) regulations and the EC Fertiliser Regulations 2003, Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2 Chemical Safety Assessment CSA not undertaken for this product

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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.

R60 May impair fertility.

R61 May cause harm to the unborn child.

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

H272 May intensify fire; oxidiser.

H319 Causes serious eye irritation.

H360FD May damage fertility. May damage the unborn child.

SDS information:

This Safety data sheet is compiled using data submitted for raw materials and practical experience. This Safety Data Sheet is prepared in compliance with Directive 1999/45/EC, Regulation 1272/2008 and Annex I of the REACH Regulation 453/2010.

The information given herein is, to the best of our knowledge, correct and is presented in good faith but no warranty, expressed or implied is given.

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 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 material or in any process, unless specified in the text.