Year Long SDS

SDS completed: 22/12/2014
Version: 01 Revision: N/A
Supersedes SDS Dated: N/A

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

1.1 Product Identifier:

Year Long

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 www.chempak.com

1.4 Emergency telephone number:

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

2. Hazards identification

2.1 Classification of the substance or mixture

CLASSIFICATION according to Directive 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
No information available

3. Composition/information on ingredients

3.2 Mixtures
Hazardous components

Chemical Name	CAS-No./ EINECS-No.	Annex Index or REACH number	Symbol(s)	Phrase(s)	Concentration [%]
Potassium nitrate	7757-79-1 231-818-8		According to 1272/2008: GHS03  According to 67/548/EEC:  OXIDISING	According to 1272/2008: Oxid. Solid 3; H272 According to 67/548/EEC: R8	0-30.1%
Ammonium nitrate	6484-52-2 229-347-8	01-2119490981-27-XXXX	According to 1272/2008: GHS07  GHS03  According to 67/548/EEC:  OXIDISING  IRRITANT	According to 1272/2008: Oxid. Solid 3; H272 Eye Irrit. 2; H319 According to 67/548/EEC: R8 R36	<34.4%

Potassium sulphate	7778-80-5 231-915-5		According to 1272/2008: GHS05  According to 67/548/EEC:  IRRITANT	According to 1272/2008: Eye Dam. 1 H318 According to 67/548/EEC: R41	<17.2%
Borax	1303-96-4		According to 1272/2008: GHS07  GHS08  According to 67/548/EEC:  TOXIC	According to 1272/2008: Eye Irrit. 2; H319 Repr. 1B; H360FD According to 67/548/EEC: R36 R60 R61	<0.86%

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

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. Seek medical attention if symptoms persist or develop.

4.2 Most important symptoms and effects, both acute and delayed
ACUTE EFFECTS:
Dry/sore throat. Coughing. Irritation of airways. Gastrointestinal discomfort. Vomiting. Nausea. Diarrhoea.
DELAYED SYMPTOMS:
Dizziness. Feeling of weakness. Cardiac arrhythmia. Headaches. Consciousness disorders. Red skin.

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

5. Firefighting measures

5.1 Extinguishing media
Product is not classified as flammable. Use extinguishing media suitable for surrounding materials, e.g. Water; Water spray; Foam; Carbon Dioxide (CO_2); Dry powder.

5.2 Special Hazards arising from the substance or mixture
With heating/incineration: formation of toxic and corrosive gases/fumes; nitrous fumes, oxides of potassium.
Decomposes under temperature increases: formation of oxygen.
Reacts with (some) acids: formation of toxic and corrosive gases/fumes: nitrous fumes.

5.3 Advice for fire-fighters
In the event of fire, wear self-contained breathing apparatus and chemical protective suit. Dilute toxic gases with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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. Wear protective gloves/protective clothing/eye protection.

6.2 Environmental precations
Do not empty into drains.
Retain and dispose of contaminated wash water.

6.3 Methods and material for containment and cleaning up
Scoop spilled substance into sealable containers. Do not return spilled product to original package. Clean contaminated surface with an excess of water. Clean clothing and material after activities. Do not absorb into combustible material such as: sawdust or other combustible absorbents.

6.4 Reference to other sections
For personal protection see section 8.

7. Handling and storage

7.1 Precaution for safe handling
Use with adequate ventilation. Wash hands thoroughly after working with this product.
Wear protective gloves/protective clothing.
GENERAL OCCUPATIONAL HYGIENE:
Do not eat, drink or smoke while using this product. Clean contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities
Keep away from heat. Keep away from sources of ignition - No smoking. Keep away from combustible material. Protect from contamination. Store in a cool, dry place in original labelled container.

7.3 Specific end use(s)
Coated NPK fertilizer for horticultural use. EC fertilizer.
Always read the label and product information before use.

8. Exposure controls and personal protection

8.1 Control Parameters
Potassium nitrate:
DNEL (Dermal, general population) 12.5 mg/kg/day
DNEL (Dermal, labourers) 20 mg/kg/day
DNEL (Inhalation, general population) 10.9 mg/m³
DNEL (Inhalation, labourers) 36.7 mg/m³
DNEL (Oral, general population) 12.5 mg/kg bw/day
DNEL (Oral, labourers) N/A

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

PNEC
Ammonium Nitrate:
Fresh water
Value: 0,45 mg/l

Marine water
Value: 0,045 mg/l

Ceiling Limit Value
Value: 4,5 mg/l

Potassium sulphate:
DNEL (Dermal, general population) 12.8 mg/kg bw/day
DNEL (Dermal, labourers) 21.3 mg/kg/day
DNEL (Inhalation, general population) 11.1 mg/m³
DNEL (Inhalation, labourers) 37.6 mg/m³
DNEL (Oral, general population) 12.8 mg/kg bw/day
DNEL (Oral, labourers) N/A

8.2 Exposure controls
Work in open air/adequately ventilated areas to ensure remaining below the recommended exposure limits.
Personal protective equipment:
HAND PROTECTION: Gloves (tested to EN 374).
PROVIDES ADEQUATE PROTECTION: Butyl rubber, neoprene, rubber.
PROVIDES INADEQUATE PROTECTION: natural tissues.
EYE PROTECTION
Safety glasses (according EN 166).
SKIN PROTECTION
Protective clothing.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties
Appearance; Brown granular solid
Odour; Odourless
Odour threshold; Information not available
pH; Information not available
Melting point/range; >210 °C
Initial boiling point and boiling range; Information not available
Flash point; Not applicable
Evaporation rate; Information not available
Flammability (solid, gas); The product is not flammable
Upper /lower flammability or explosive limits; Not applicable
Vapour Pressure; Information not available
Vapour density; Information not available
Specific gravity; Information not available
Solubility (ies); Information not available
Partition coefficient: n-octanol/water; Information not available
Auto ignition temperature: Not auto-flammable
Decomposition temperature: Information not available
Relative density: 900-1200 kg/m³

9.2 Other Information
Information not specified

10. Stability and reactivity

10.1 Reactivity
Stable under normal conditions of storage and use.

10.2 Chemical Stability
Stable under normal conditions of storage and use.

10.3 Possibility of hazardous reactions
Information not specified.

10.4 Conditions to avoid
Avoid extremes of temperature. Protect from moisture.

10.5 Incompatible materials
Combustibles, reducing agents, powdered metals, strong acids, organic material.

10.6 Hazardous decomposition products
With heating/incineration: formation of toxic and corrosive gases/fumes; nitrous fumes, oxides of potassium. Decomposes under temperature increases: formation of oxygen.
Reacts with (some) strong acids: formation of toxic and corrosive gases/fumes; nitrous fumes.

11. Toxicological information

11.1 Information on toxicological effects
ACUTE EFFECTS/SYMPTOMS
AFTER INHALATION OF SUBSTANCE
Dry/sore throat. Coughing. Irritation of airways. Gastrointestinal discomfort. Vomiting. Nausea. Diarrhoea.
AFTER INGESTION OF LARGE QUANTITIES
Bloody bowel movement.
THE FOLLOWING SYMPTOMS MAY APPEAR LATER:
Dizziness. Feeling of weakness. Cardiac arrhythmia. Headaches.
Consciousness disorders. Red skin.
AFTER CONTINUOUS EXPOSURE/CONTACT
Tingling/irritation of the skin. Redness of the eye tissue.
AFTER CONTINUOUS EXPOSURE/CONTACT
Irritation of the eye tissue.
AFTER CONTINUOUS/REPEATED EXPOSURE/CONTACT
Skin rash/infection. Not very harmful through the mouth (LD50 oral 2000/5000 mg/kg).
Slightly irritating to the skin. Slightly irritating to the respiratory system.
CHRONIC EFFECTS
Not classified as toxic for reproduction (EC).
Not listed in mutagenicity class (EC,MAK).
Not listed in carcinogenity class (IARC,EC,TLV,MAK).

Toxicity of components:
Potassium nitrate:
Acute Toxicity
LD50 oral rat: > 2000 mg/kg bw (OECD 405)
LD50 dermal rat: > 5000 mg/kg bw (OECD 402)
LC50 inhalation rat: > 0.527 mg/l (4-h) (OECD 403)
Ammonium Nitrate:
Acute oral toxicity: LD50: >2950mg/kg, rat, OECD Test Guideline 401
Acute inhalation toxicity: >88.8 mg/l, no information available
Acute dermal toxicity: LD50: >5000mg/kg, rat, OECD Test Guideline 402
Skin corrosion/irritation: rabbit, Result: non-irritant, OECD Test Guideline 404
Serious eye damage/eye irritation: rabbit, Result: non-irritant, OECD Test Guideline 405
Respiratory or skin sensitisation: Result: Does not cause skin sensitisation.
Genotoxicity in vitro: Result: negative, OECD Test Guideline 471
Carcinogenicity: rat, Animal testing did not show any carcinogenic effects.
Reproductive toxicity: rat, Animal testing did not show any effects on fertility.
Teratogenicity: rat, Did not show teratogenic effects in animal experiments.
STOT – repeated exposure: rat, Oral, Exposure Time: 28d, NOAEL: > 1500mg/kg
STOT – repeated exposure: rat, Oral, Exposure Time: 52w, NOAEL: =256mg/kg, OECD Test Guideline 453
STOT – repeated exposure: rat, by inhalation, Exposure Time: 2w, NOAEL: ≥185mg/kg, Repeated Dose Inhalation Toxicity: 28-day or 14-day study.

Potassium sulphate:
Acute Toxicity
LD50, oral rat > 2000mg/kg
LD50, dermal rat > 2000mg/kg
LC50, Inhalation rat >1200 mg/m³ air

12. Ecological information

12.1 Toxicity
Components:
Potassium nitrate:
PNEC Environment, freshwater, continuous 0.45 mg/l Not very harmful to invertebrates (Daphnia).
PNEC Environment, saltwater, continuous 0.045 mg/l Not harmful to fish (LC50(96u) >1000 mg/l).
PNEC Environment, water, non-continuous 4.5 mg/l LC50 (for fish): 1378 mg/l (96-h)
PNEC Environment, waste water treatment, continuous 18 mg/l.
EC50 (for algae): > 1700 mg/l 10 d
LD50 oral rat: > 2000 mg/kg bw (OECD 405)
LD50 dermal rat: > 5000 mg/kg bw (OECD 402)
LC50 inhalation rat: > 0.527 mg/l (4-h) (OECD 403)

Ammonium Nitrate:
Toxicity to fish: LC50: > 100mg/l, 96h, Fish
Toxicity to daphnia and other aquatic invertebrates: EC50: 490mg/l, 48h, Daphnia LC50: 490mg/l
Toxicity to algae: EC50: 1700mg/l, 10d, Selenastrum capricornutum (green algae)

Potassium sulphate:
LC50/96h (fathead minnow) 680 mg/L
LC50/96 (bluegill) 3550 mg K2SO4/L
EC50/48 (daphnia magna) 720 mg/l
EC50/LC50 for freshwater algae: 2700 mg/L

12.2 Persistence and degradability
Information not available.

12.3 Bioaccumulative potential
Slightly or not bioaccumulative.

12.4 Mobility in soil
Information not available.

12.5 Results of PBT and vPvB
Information not available.
12.6 Other adverse effects
May cause eutrophication.

13. Disposal considerations

13.1 Waste Treatment Methods
Dispose of product/container in accordance with local and national regulations.

14. Transport information

14.1 UN number: 2071

14.2 UN proper shipping name: Ammonium nitrate fertilizers

14.3 Transport hazard: 9

14.4 Packing group: No Information available

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.

Borax is listed on the Candidate list and is a substance of Very High Concern (SVHC).
Substance not included in Annexure I of Directive 67/548/EEG and Annexure VI of Regulation (EC) no. 1272/2008 and 453/2010.
For more details: see Publication Series on Dangerous Substances 7, PGS 7, Nitrate fertilizers "Storage and transport".
EC-fertilizer according to regulation (EC) no. 2003/2003.

15.2 Chemical Safety Assessment
CSA not undertaken for this product

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.
R41 Risk of serious damage 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.
H318 Causes serious eye damage
H319 Causes serious eye irritation.
H360FD May damage fertility. May damage the unborn child.

SDS information:

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.