SAFETY DATA SHEET
(in accordance with Regulation (EU) 2015/830)

KS 21-7-3-4+TE

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: KS 21-7-3-4+TE

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

Fertilizer

Uses advised against:
Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **Kingenta Australia AG PTY LTD**
Address: 671 – 677 Hunter Street
City: Newcastle 2302 New South Wales
Telephone: +61 2 4929 4972
Fax: +61 2 4929 6358
Web: au@kingenta.com

1.4 Emergency telephone number: (As Above)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the mixture.
In accordance with Regulation (EU) No 1272/2008:
Aquatic Chronic 3 : Harmful to aquatic life with long lasting effects.

2.2 Label elements.
Labelling in accordance with Regulation (EU) No 1272/2008:
Pictograms:

H statements:
H412 Harmful to aquatic life with long lasting effects.

P statements:
P501 Dispose of contents/container to ...

2.3 Other hazards.
In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.
Not Applicable.

3.2 Mixtures.
Substances posing a danger to health or the environment in accordance with the Regulation (EC) No. 1272/2008, assigned a Community exposure limit in the workplace, and classified as PBT/vPvB or included in the Candidate List:

Identifiers	Name	Concentrate	(*)Classification - Regulation (EC) No 1272/2008

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			Classification	specific concentration limit
CAS No: 6484-52-2 EC No: 229-347-8	ammonium nitrate	10 - 30 %	Eye Irrit. 2, H319 - Ox. Sol. 3, H272	Eye Irrit. 2, H319: 80 % < C ≤ 100 %
Index No: 030-013-00-7 CAS No: 1314-13-2 EC No: 215-222-5	zinc oxide	0.15 - 0.5 %	Aquatic Acute 1, H400 - Aquatic Chronic 1, H410	-
CAS No: 14168-73-1 EC No: 231-298-2	Magnesiumsulfate monohydrate	2 - 3 %	-	-
CAS No: 7722-76-1 EC No: 231-764-5	ammonium dihydrogenorthophosphate	30- 40 %	-	-
CAS No: 7778-80-5 EC No: 231-915-5	potassium sulfate	5 - 10 %	-	-

(*)*The complete text of the H phrases is given in section 16 of this Safety Data Sheet.*

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.
Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

Eye contact.
If wearing contact lenses, remove them. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

Skin contact.
Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. **NEVER** use solvents or thinners.

Ingestion.
If accidentally ingested, seek immediate medical attention. Keep calm. **NEVER** induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed.
No known acute or delayed effects from exposure to the product.

4.3 Indication of any immediate medical attention and special treatment needed.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

SECTION 5: FIREFIGE TING MEASURES.

The product does not present any particular risk in case of fire.

5.1 Extinguishing media.
Recommended extinguishing methods.
Extinguisher powder or CO_2. In case of more serious fires, also alcohol-resistant foam and water spray. Do not use a direct stream of water to extinguish.

5.2 Special hazards arising from the mixture.
Special risks.
Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.
Nitrogen oxides, Amoonia can be formed as well.
5.3 Advice for firefighters.

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Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.
Fire protection equipment.
According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.
For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.
Product dangerous for the environment, in case of large spills or if the product contaminates lakes, rivers, or sewers, inform the responsible authorities according to local legislation.Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.
The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

6.4 Reference to other sections.
For exposure control and individual protection measures, see section 8.
For later elimination of waste, follow the recommendations under section 13.

SECTION 7: E ANDLING AND STORAGE.

7.1 Precautions for safe handling.
For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers.
In the application area, smoking, eating, and drinking must be prohibited.
Follow legislation on occupational health and safety.
Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.
Store according to local legislation. Observe indications on the label. Store the containers between 5 and 35º C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.
The product is not affected by Directive 2012/18/EU (SEVESO III).
7.3 Specific end use(s).
No more relevant information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values.The product does NOT contain substances with Biological Limit Values.
Concentration levels PNEC:

Name	DNEL/DMEL	Type	Value
ammonium nitrate CAS No: 6484-52-2 EC No: 229-347-8	DNEL (Workers)	Inhalation, Long-term, Systemic effects	37,6 (mg/m³)
	DNEL (General population)	Inhalation, Long-term, Systemic effects	11,1 (mg/m³)
	DNEL (Workers)	Dermal, Long-term, Systemic effects	21,3 (mg/kg bw/day)

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	DNEL (General population)	Dermal, Long-term, Systemic effects	12,8 (mg/kg bw/day)
	DNEL (General population)	Oral, Long-term, Systemic effects	12,8 (mg/kg bw/day)
zinc oxide CAS No: 1314-13-2 EC No: 215-222-5	DNEL (Workers)	Inhalation, Long-term, Systemic effects	5 (mg/m³)

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

Concentration levels PNEC:

Name	Details	Value
ammonium nitrate CAS No: 6484-52-2 EC No: 229-347-8	aqua (freshwater)	0,45 (mg/L)
	aqua (marine water)	0,045 (mg/L)
	aqua (intermittent releases)	4,5 (mg/L)
	PNEC STP	18 (mg/L)

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

8.2 Exposure controls.

Measures of a technical nature:
Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	**100 %**
Uses:	**Fertilizer**
Breathing protection:	
If the recommended technical measures are observed, no individual protection equipment is necessary.	
Hand protection:	
If the product is handled correctly, no individual protection equipment is necessary.	
Eye protection:	
PPE:	Protective goggles against particle impacts.
Characteristics:	«CE» marking, category II. Eye protector against dust and smoke.
CEN standards:	EN 165, EN 166, EN 167, EN 168
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.
Skin protection:	
PPE:	Work footwear.
Characteristics:	«CE» marking, category II.
CEN standards:	EN ISO 13287, EN 20347
Maintenance:	This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.
Observations:	Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.
Appearance:Granular
Colour: White and blue
Odour:N.A./N.A.
Odour threshold:N.A./N.A.
pH:5-6.5 (1%)
Melting point:N.A./N.A.

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Boiling Point: N.A./N.A.
Flash point: N.A./N.A.
Evaporation rate: N.A./N.A.
Inflammability (solid, gas): N.A./N.A.
Lower Explosive Limit: N.A./N.A.
Upper Explosive Limit: N.A./N.A.
Vapour pressure: N.A./N.A.
Vapour density:N.A./N.A.
Relative density:N.A./N.A.
Solubility:N.A./N.A.
Liposolubility: N.A./N.A.
Hydrosolubility: N.A./N.A.
Partition coefficient (n-octanol/water): N.A./N.A.
Auto-ignition temperature: N.A./N.A.
Decomposition temperature: N.A./N.A.
Viscosity: N.A./N.A.
Explosive properties: N.A./N.A.
Oxidizing properties: N.A./N.A.
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

9.2 Other information.
Pour point: N.A./N.A.
Blink: N.A./N.A.
Kinematic viscosity: N.A./N.A.
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.
The product does not present hazards by their reactivity.

10.2 Chemical stability.
Unstable in contact with:
- Bases.

10.3 Possibility of hazardous reactions.
Neutralization can occur on contact with bases.

10.4 Conditions to avoid.
- Avoid contact with bases.

10.5 Incompatible materials.
Avoid the following materials:
- Bases.

10.6 E azardous decomposition products.
Depending on conditions of use, can be generated the following products:
- Corrosive vapors or gases.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.
Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.
Splatters in the eyes can cause irritation and reversible damage.

Toxicological information about the substances present in the composition.

Name	Acute toxicity			
	Type	Test	Kind	Value
ammonium nitrate	Oral	LD50	Rat	2220 mg/kg [1]
		LD50	Rat	2950 mg/kg bw [2]
		LD50	Mouse	2085 mg/kg bw [3]

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CAS No: 6484-52-2 EC No: 229-347-8		[1] Gigiena i Sanitariya. For English translation, see HYSAAV. Vol. 52(8), Pg. 25, 1987. [2] Study report, 1981. OECD Guideline 401 (Acute Oral Toxicity) [3] Evaluation of the mutagenic activity of ammonium nitrate and dimethylamine salt of 2,4-dichlorophenoxyacetic acid, Nechkina MA, 1992.
	Dermal	LD50 Rat >5000 mg/kg [1] [1] Study report, 2000. According to OECD 402 and GLP procedures.
	Inhalation	LC50 Rat >88.8 mg/L (4 h) [1] [1] experimental result

a) acute toxicity;
Not conclusive data for classification.

b) skin corrosion/irritation;
Not conclusive data for classification.

c) serious eye damage/irritation;
Based on available data, the classification criteria are not met.

d) respiratory or skin sensitisation;
Not conclusive data for classification.

e) germ cell mutagenicity;
Not conclusive data for classification.

f) carcinogenicity;
Not conclusive data for classification.

g) reproductive toxicity;
Not conclusive data for classification.

h) STOT-single exposure;
Not conclusive data for classification.

i) STOT-repeated exposure;
Not conclusive data for classification.

j) aspiration hazard;
Not conclusive data for classification.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
ammonium nitrate	Fish	LC50	Cyprinus carpio (Fish, fresh water) [1] BASF AG Ludwigshafen	95 - 102 mg/l (48 h) [1]
	Aquatic invertebrates	EC50 EC50	Daphnia magna Daphnia sp.	555 mg/l [1] 111 - 840 mg/l (48 h) [2]

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CAS No: 6484-52-2 EC No: 229-347-8		[1] DSM Meststoffen BV Sittard Metallgesellschaft AG Frankfurt a.M [2] Dyno Nitrogen AB Ljungaverk
	Aquatic plants	Scenedesmus EC50 quadricauda 83 mg/l [1] EC50 several benthic diatoms >1700 mg/l (10 d) [2] [1] Forschungsbericht, Umweltbundesamt, Berlin, cited in KBWS, Trenel, J. and Kuehn, R. 1982 [2] Tolerance of estuarine benthic diatoms to high concentrations of ammonia, nitrite ion, nitrate ion and orthophosphate, Admiraal W. 1977.

12.2 Persistence and degradability.
No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potencial.
Information about the bioaccumulation of the substances present.

Name	Bioaccumulation			
	Log Pow	BCF	NOECs	Level
ammonium nitrate N. CAS: 6484-52-2 EC No: 229-347-8	-3,1	-	-	Very low

12.4 Mobility in soil.
No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.
No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.
No information is available about other adverse effects for the environment.

SECTION 13 DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.
Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.
Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

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14.1 UN number.
Transportation is not dangerous.

14.2 UN proper shipping name.
Description:
ADR: Transportation is not dangerous.
IMDG: Transportation is not dangerous.
ICAO: Transportation is not dangerous.

14.3 Transport hazard class(es).
Transportation is not dangerous.

14.4 Packing group.
Transportation is not dangerous.

14.5 Environmental hazards.
Transportation is not dangerous.

14.6 Special precautions for user.
Transportation is not dangerous.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.
Transportation is not dangerous.

SECTION 15: REGULATORY INFORMATION.

15.1 Safety, health and environmental regulations/legislation specific for the mixture.
The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

The product is not affected by Directive 2012/18/EU (SEVESO III).
The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.
The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.
Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles:

Designation of the substance, of the group of substances or of the mixture	**Conditions of restriction**
58. Ammonium nitrate (AN) CAS No 6484-52-2 EC No 229-347-8	1. Shall not be placed on the market for the first time after 27 June 2010 as a substance, or in mixtures that contain more than 28 % by weight of nitrogen in relation to ammonium nitrate, for use as a solid fertiliser, straight or compound, unless the fertiliser complies with the technical provisions for ammonium nitrate fertilisers of high nitrogen content set out in Annex III to Regulation (EC) No 2003/2003 of the European Parliament and of the Council (10). 2. Shall not be placed on the market after 27 June 2010 as a substance, or in mixtures that contain 16 % or more by weight of nitrogen in relation to ammonium nitrate except for supply to: (a) downstream users and distributors, including natural or legal persons licensed or authorised in accordance with Council Directive 93/15/EEC (11); (b) farmers for use in agricultural activities, either full time or part time and not necessarily related to the size of the land area. For the purposes of this subparagraph: (i) 'farmer' shall mean a natural or legal person, or a group of natural or legal persons, whatever legal status is granted to the group and its members by national law, whose holding is situated within Community territory, as referred to in Article 299 of the Treaty, and who exercises an agricultural activity; (ii) 'agricultural activity' shall mean the production, rearing or growing of agricultural products including harvesting, milking, breeding animals and keeping animals for farming purposes, or maintaining the land in good agricultural and environmental condition as established under Article 5 of Council Regulation (EC) No 1782/2003 (12); (c) natural or legal persons engaged in professional activities such as

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	horticulture, plant growing in greenhouses, maintenance of parks, gardens or sport pitches, forestry or other similar activities. 3. However, for the restrictions in paragraph 2, Member States may until 1 July 2014, for socioeconomic reasons, apply a limit of up to 20 % by weight of nitrogen in relation to ammonium nitrate for substances and mixtures placed on the market within their territories. They shall inform the Commission and other Member States thereof.

15.2 Chemical safety assessment.
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

Complete text of the H phrases that appear in section 3:

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Classification codes:

Acute Tox. 4 [Oral] : Acute toxicity (Oral), Category 4
Aquatic Acute 1 : Acute toxicity to the aquatic environment, Category 1
Aquatic Chronic 1 : Chronic effect to the aquatic environment, Category 1
Aquatic Chronic 3 : Chronic effect to the aquatic environment, Category 3
Eye Dam. 1 : Serious eye damage, Category 1
Eye Irrit. 2 : Eye irritation, Category 2
Ox. Sol. 3 : Oxidising solid, Category 3

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:
BCF: Bioconcentration factor.
CEN: European Committee for Standardization.
DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.
DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
EC50: Half maximal effective concentration.
PPE: Personal protection equipment.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.
Log Pow: Logarithm of the partition octanol-water.
NOEC: No observed effect concentration.
PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

Key literature references and sources for data:
http://eur-lex.europa.eu/homepage.html
http://echa.europa.eu/
Regulation (EU) 2015/830.
Regulation (EC) No 1907/2006.
Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive

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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.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.

-End *of safety data sheet..*-