MATERIAL SAFETY DATA SHEET
Amvista G0 Kick Start

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

1.1 Product identifier

Product name	Amvista G0 Kick Start
REACH registration notes	This Mixture is exempt from REACH registration according to Regulation (EC) No 1907/2006 (REACH).

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

Identified uses	Fertiliser

1.3 Details of the supplier of the safety data sheet

Supplier	Angus Horticulture Polmood, Guthrie Forfar, Angus, DD8 2TW

1.4 Emergency telephone number

	+44 (0) 1241 829049
Emergency telephone number	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (EC1272/2008)

Physical hazards	Not classified
Health hazards	Eye Irrit. 2- H318
Environmental hazards	Not classified

2.2 Label elements

Hazard pictograms

Signal word	Danger
Hazard statements	EUH208 contains nickel sulfate. May produce an allergic reaction H318 Causes serious eye damage
Precautionary statements	P280 Wear protective gloves/protective clothing/eye protection/face protection P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately all a POISON CENTRE/Doctor
Contains	Calcium Nitrate
Supplementary Precautionary Statements	P264 Wash contaminated skin thoroughly after handling P321 Specific treatment (see medical advice on this label) P330 Rinse mouth P332+P313 If skin irritation occurs: Get medical advice/attention P362+P364 Take off contaminated clothing and wash it before use

2.3 Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Calcium Nitrate — **10-30%**
CAS Number: 15245-12-2
EC Number: 239-289-5
REACH registration Number: 01-2119488967-16-XXXX

Classification
Acute Tox 4 – H302
Eye Dam 1 – H318

Classification (67/548/EEC or 1999/45/EC)
Xn; R22. Xi; R41

Iron (II) sulfate — **5-10%**
CAS Number: 7720-78-7
EC Number: 231-753-5

Classification
Acute Tox 4 – H302
Skin Irrit 2 – H315
Eye Irrit 2 – H319

SSP Single Superphosphate — **5-10%**
CAS Number: 8011-76-5
EC Number: 232-379-5
REACH registration Number: 01-2119488967-11-XXXX

Classification
Eye Irrit 2 – H319

Classification (67/548/EEC or 1999/45/EC)
Xi; R41

Powder TSP — **5-10%**
CAS Number: 65996-95-4
EC Number: 266-030-3
REACH registration Number: 01-2119493057-33-XXX

Classification
Eye Irrit 2 – H319

Classification (67/548/EEC or 1999/45/EC)
Xi; R41

Nickel sulfate — **0.0%**
CAS Number: 7786-81-4
M factor (Acute) = 1
EC Number: 232-104-9
M factor (Chronic) = 1

Classification
Acute Tox 4 – H302
Acute Tox 4 – H332
Skin Irrit 2 – H315
Resp Sens 1 – H334
Skin Sens 1 – H317
Muta 2 – H341
Carc 1A – H350i
Repr 1B – H360D
STOT RE 1 – H372
Aquatic Acute 1 – H400
Aquatic Chronic 1 – H410

The Full text for all R-Phrases and Hazard Statement are Displayed in Section 16

SECTION 4: First Aid measures

4.1 Description of first aid measures

Inhalation	Get medical attention if symptoms are severe or persist
Ingestion	Get medical attention if symptoms are severe or persist.
Skin contact	Wash skin thoroughly with soap and water or use an approved skin cleanser. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Rinse immediately with plenty water. Remove contact lenses, if present and easy to do so. Continue rinsing. Continue to rinse for at least 10 minutes. Get medical attention if symptoms are severe or persist after washing.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation	Dust in high concentrations may irritate the respiratory system
Ingestion	No harmful effects expected from quantities likely to be ingested by accident
Skin contact	Prolonged contact may cause redness, irritation and dry skin. The product contains a small amount of sensitising substance. May cause allergic skin reaction.
Eye contact	Causes serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Not applicable

5.2 Special hazards arising from the substance or mixture

Special hazards	None known

5.3 Advice for firefighters

Protective actions during firefighting	Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment firefighters	Use protective equipment appropriate for surrounding materials. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid inhalation of dust and contact with skin and eyes. Use suitable respiratory protection if ventilation is inadequate. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Take care as floors and other surfaces may become slippery.

6.2 Environmental precautions

Environmental precautions	The product is slowly degradable. The product is not expected to be hazardous to the environment. Avoid the spillage or runoff entering drains, sewers or watercourses

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	Take care as floors and others surfaces may become slippery. Avoid generation and spreading of dust. Collect spillage with a shovel and broom, or similar and reuse, if possible. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Dispose of contents/container in accordance with national regulations. Do not empty into drains. Collect and dispose of spillage as indicated in Section 13

6.4 Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Usage precautions Read label before use. Wear appropriate clothing to prevent repeated or prolonged skin contact. Avoid inhalation of dust and contact with skin and eyes.

Advice on general occupational Hygiene Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wash at the end of each work shift and before eating, smoking and using the toilet.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions Store in a dry place. Keep container in a well-ventilated place. Keep out of reach of children. Store away from incompatible materials (see Section 10)

7.3 Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2

SECTION 8: Exposure controls/Personal protection

8.1 Control parameters Occupational exposure limits

Calmag Magnesium Oxide Long-term exposure limit (8-hour TWA); WL 10mg/m³ inhalable dust as Mg
Long-term exposure limit (8-hour TWA): WEL 4mg/m³ fume and respirable dust as Mg

WEL = Workplace Exposure Limit

Calcium Nitrate (CAS: 15245-12-2)

DNEL Workers - Dermal; Long term systemic effects: 13.9 mg/kg/day.
Workers - Inhalation; Long term systemic effects: 98 mg/m³

PNEC
- Fresh water; 0.45 mg/l
- marine water; 0.045 mg/l
- Intermittent release; 4.5 mg/l
- STP; 18 mg/l

SSP Single Superphosphate (CAS: 8011-76-5)

DNEL Workers – Inhalation; Long term systemic effects: 3.1 mg/m³
Workers – Dermal; Long term systemic effects: 17.4 mg/kg/day
General population – Inhalation; Long term systemic effects: 0.9 mg/m³
General population – Oral; Long term systemic effects: 2.1 mg/kg/day
General population – Dermal; Long term systemic effects: 10.4 mg/kg/day

PNEC
- Fresh Water; 1.7 mg/l
- Marine Water; 0.17 mg/l
- Intermittent release; 17 mg/l
- STP; 10 mg/l

8.2 Exposure Controls
Protective equipment

Appropriate engineering controls	All handling should only take place in well-ventilated areas
Eye/Face Protection	Wear eye protection
Hand Protection	Wear protective gloves
Other skin & body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact
Hygiene measures	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product
Respiratory protection	No specific recommendations

SECTION 9: Physical and Chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Granules
Colour	Beige to Dark Brown or Black
Odour	Mild
Odour threshold	Not determined
pH	Slightly Acidic
Melting Point	Not relevant
Initial Boiling Point & Range	Not relevant
Flash Point	Not relevant
Evaporation Rate	Not relevant
Flammability (solid,gas)	The product is not flammable
Vapour pressure	Not relevant
Vapour density	Not relevant
Relative density	Not relevant
Solubility (ies)	Not known
Partition coefficient	Not known
Auto-ignition temperature	Not relevant
Decomposition Temperature	Not relevant
Viscosity	Not relevant
Explosive properties	Not relevant
Oxidising properties	Does not meet the criteria for classification as oxidising

9.2 Other information
Other information No information required

SECTION 10: Stability & Reactivity

10.1 Reactivity
Reactivity No test data specifically related to reactivity available for this product or its ingredients

10.2 Chemical Stability
Stability Stable when stored in a dry place

10.3 Possibility of hazardous reactions
Possibility of hazardous reactions No potentially hazardous reactions known

10.4 Conditions to avoid
Conditions to avoid There are no known conditions that are likely to result in hazardous situation

10.5 Incompatible materials
Materials to avoid None known

10.6 Hazardous decomposition products
Hazardous decomposition products None known

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity – oral

ATE oral (mg/kg)	2,376.43

Acute toxicity – dermal

Notes (dermal LD_{50})	No specific test data are available

Acute toxicity – inhalation

Notes (inhalation LC_{50})	No specific test data are available

Skin corrosion/irritation

Skin corrosion/irritation	Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation	Causes serious eye damage. In-vitro testing conducted on products with SSP Content <62%, 2015, Result: Reduced classification to Eye Irritant. Test Guideline OECD 438. This result is less severe than the harmonised classification for Super Phosphates as Eye Damage 1 H318.

Respiratory sensitisation

Respiratory sensitisation	No specific test data are available

Skin sensitisation

Skin sensitisation	Based on available data the classification criteria are not met. Contains a small amount of skin sensitising substance. May cause irritation.

Germ cell mutagenicity

Genotoxicity – in vitro	This substance has no evidence of mutagenic properties

Carcinogenicity

Carcinogenicity	No specific test data are available.

Reproductive toxicity

Reproductive toxicity – fertility	Based on available data the classification criteria are not met.

Specific target organ toxicity – single exposure

STOT – single exposure	Not classified as a specific target organ toxicant after a single exposure

Specific target organ toxicity – repeated exposure

STOT – repeated exposure	Not classified as a specific target organ toxicant after repeated exposure

Aspiration hazard

Aspiration hazard	Not anticipated to present an aspiration hazard, based on chemical structure
Skin contact	May cause skin irritation. The product contains a small amount of sensitising substance. May cause an allergic reaction
Eye contact	Causes serious eye damage

SECTION 12: Ecological information

Ecotoxicity Contains Nickel Sulphate. The product is not expected to be hazardous to the environment. The product is not expected to be toxic to aquatic organisms. Not regarded as dangerous for the environment. No negative effects on the aquatic environment are known.

12.1 Toxicity

12.2 Persistance and degradability
Persistence and degradability The product is slowly degradable

12.3 Bioaccumulative potential
Partition coefficient Not known

12.4 Mobility in soil
Mobility No data available

12.5 Results of PBT and vPvB assessment
Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB

12.6 Other Adverse effects
Other adverse effects Not relevant

SECTION 13: Disposal considerations

13.1 Waste treatment methods
General Information Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. Only store in correctly labelled containers. Dispose of the contents/container in accordance with national regulations. No specific disposal method required. Do not empty into drains.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1 UN number Not applicable

14.2 UN proper shipping name Not applicable

14.3 Transport hazard class(es) No transport sign warning required

14.4 Packing group Not applicable

14.5 Environmental hazards
Environmental hazardous substance/marine pollutant No

14.6 Special precautions for user Not applicable

14.7 Transport in bulk to Annex II of MARPOL and the IBC Code
Transport in bulk according to Annex II of MARPOL and the IBC Code Not applicable

SECTION 15: Regulatory Information

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

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

15.2 Chemical safety assessment No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations & Acronyms Used in the safety data sheet

ATE: Acute Toxicity Estimate
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS: Chemical Abstracts Service
DNEL: Derived No Effect level
GHS: Globally Harmonised System
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air
LC_{50}: Lethal Concentration to 50% of a test population
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose)
PBT: Persistent, Bioaccumulative and Toxic substance
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SVHC: Substances of Very High Concern
vPvB: Very Persistent and Very Bioaccumulative
cATpE: Converted Acute Toxicity Point Estimate
LOAEC: Lowest Observed Adverse Effect Concentration
LOAEL: Lowest Observed Adverse Effect Level
EC_{50}: 50% of maximal Effective Concentration
NOAEL: No Observed Adverse Effect Level
NOEC: No Observed Effect Concentration
LOEC: Lowest Observed Effect Concentration
DMEL: Derived Minimal Effect Level

MATERIAL SAFETY DATA SHEET
Amvista G0 Kick Start

Risk phrases in full

R20/22 Harmful by inhalation and if swallowed
R22 Harmful if swallowed
R36/38 Irritating to eyes and skin
R38 Irritation to skin
R41/43 May cause sensitisation by inhalation and skin contact
R48/23 Toxic; danger of serious damage to health by prolonged exposure through inhalation
R49 May cause cancer by inhalation
R50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment
R61 May cause harm to the unborn child
R68 Possible risk of irreversible effects
H302 Harmful if swallowed
H315 Causes skin irritation
H317 May cause allergic skin reaction
H318 Causes serious eye damage
H319 Causes serious eye irritation
H332 Harmful if inhaled
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341 Suspected of causing genetic defects
H350i May cause cancer by inhalation
H360D May damage the unborn child
H372 Causes damage to organs through prolonged or repeated exposure
H400 Very toxic to aquatic lift
H410 Very toxic to aquatic life with long lasting effects
EUH208 Contains nickel sulfate. May produce an allergic reaction