

MATERIAL SAFETY DATA SHEET



POLY4

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

1.1 Product identifier

Product name	POLY4 – a multi-nutrient granular or crystalline mineral.
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1.2 Relevant identified uses of the substance or mixture and uses advised against

Applications	POLY4 is a multi-nutrient fertilizer resource suitable for use where potassium, sulphur, magnesium or calcium are required. Suitable for organic production as a source of essentially chloride-free potassium, sulphur, magnesium and calcium.
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1.3 Details of the supplier of the safety data sheet

Manufacturer	Business unit: Crop Nutrients, Anglo American Address: Resolution House, Lake View, Scarborough, YO11 3ZB, UK Phone: +44 1723 470 010 Company registered number: 04948435
Email address of person responsible	cropnutrients.commercial@angloamerican.com

1.4 Emergency contact

In case of emergency contact	Stacey.Bean@angloamerican.com For details of National Poison Information services see section 17.
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SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)	Not classified as hazardous. Information offered is critical to the safe handling and proper use of the product.
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2.2 Label elements (in compliance with EC Regulation No. 1272/2008 (CLP), as amended)

Hazard pictograms	None.
Signal words	None.
Hazard statements	None.
Precautionary statements	None.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

Mineral	CAS number	Composition	Classification
Polyhalite: $K_2Ca_2Mg(SO_4)_4 \cdot 2H_2O$	15278-29-2	>85% w/w	None.
Magnesite: $MgCO_3$	546-93-0	2.6% w/w	None.
Anhydrite: $CaSO_4$	7778-18-9	8.0% w/w	None.
Halite: NaCl	14762-51-7	3.6% w/w	None.
Starch: $(C_6H_{10}O_5)$	9005-25-8	0.8% w/w	None.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid measures

Eyes	Irrigate eyes with plenty of water for 15 minutes. Seek medical attention if discomfort persists.
Skin	Treat symptomatically. Rinse exposed skin and decontaminate clothing following exposure.
Inhalation	Following exposure move the patient to fresh air. Seek medical attention if discomfort persists.
Ingestion	Rinse the mouth and drink plenty of water. Seek medical attention if symptoms persist. DO NOT GIVE AN UNCONSCIOUS PERSON ANYTHING TO DRINK.

4.2 Most important symptoms and effects, both acute and delayed

Eyes	May cause irritation due to mechanical action.
Skin	Following prolonged exposure adverse symptoms may include dryness and skin cracking.
Inhalation	No specific data.
Ingestion	No specific data.

4.3 Indication of any immediate medical attention and treatment needed

	No specific information.
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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media	Use an extinguishing media suitable for the fire source.
5.2 Special hazards arising from the substance or mixture	No specific fire hazards.
5.3 Protection for firefighters	Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA). Contain and collect the effluent water used to fight the fire and prevent environmental contamination.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures	Wear dust mask if dust is airborne. Use gloves with protracted exposure.
6.2 Environmental precautions	Avoid environmental contamination to waterways via drains and sewers. Inform the relevant authorities if spillage is likely to cause an environmental hazard (sewers, waterways, soil, or air). Sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
6.3 Methods and materials for containment for cleaning up	No specific information.

6.4 Reference to other sections	See sections 8, 13 and 17 for further information.
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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling	Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering canteen areas. Use appropriate personal protective equipment (see Section 8). Do not ingest, avoid prolonged contact with eyes, skin and clothing.
7.2 Conditions for safe storage, including any incompatibilities	Store in a dry area. Absorbs moisture on long-term storage under high humidity conditions. If product has caked, or has adhered to the storage or transport container, stay out of the potential engulfment zone in case the material collapses. Store in accordance with local regulations. Ensure that bulk bags or smaller packaged products stored in tiers are stacked to prevent sliding, rolling, or collapse.
7.3 Specific end use(s)	No additional information.

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits	
Magnesite	
Australia	Limit value – 8 hours: 10 mg/m ³ inhalable dust
Belgium	Limit value – 8 hours: 10 mg/m ³
Canada	Ontario: Limit value – 8 hours: 10 mg/m ³ particulate matter Québec: Limit value – 8 hours: 10 mg/m ³ total dust
France	Limit value – 8 hours: 10 mg/m ³ respirable aerosol
New Zealand	Limit value – 8 hours: 10 mg/m ³
Singapore	Limit value – 8 hours: 10 mg/m ³
South Korea	Limit value – 8 hours: 10 mg/m ³
Switzerland	Limit value – 8 hours: 3 mg/m ³ respirable aerosol

USA	NIOSH: Limit value – 8 hours: 10 mg/m ³ total dust, 5 mg/m ³ respirable fraction OSHA: Limit value – 8 hours: 15 mg/m ³ total dust, 5 mg/m ³ respirable dust
United Kingdom	Limit value – 8 hours: 10 mg/m ³ inhalable aerosol, 4 mg/m ³ respirable aerosol
Calcium sulphate	
Australia	Limit value – 8 hours: 10 mg/m ³ inhalable dust
Austria	Limit value – 8 hours: 5 mg/m ³ respirable aerosol Limit value – short term: 10 mg/m ³ respirable aerosol
Belgium	Limit value – 8 hours: 10 mg/m ³
Canada	Alberta: Limit value – 8 hours: 10 mg/m ³ Ontario: Limit value – 8 hours: 10 mg/m ³ inhalable aerosol Québec: Limit value – 8 hours: 10 mg/m ³ total dust, 5 mg/m ³ respirable fraction
Germany	AGS: Limit value – 8 hours: 6 mg/m ³ respirable aerosol DFG: Limit value – 8 hours: 4 mg/m ³ inhalable fraction, 1.5 mg/m ³ respirable fraction
Hungary	Limit value – 8 hours: 6 mg/m ³ respirable aerosol
Ireland	Limit value – 8 hours: 10 mg/m ³
Latvia	Limit value – 8 hours: 4 mg/m ³
New Zealand	Limit value – 8 hours: 10 mg/m ³ inhalable dust
Poland	Limit value – 8 hours: 10 mg/m ³ inhalable fraction
Singapore	Limit value – 8 hours: 10 mg/m ³
South Korea	Limit value – 8 hours: 10 mg/m ³
Spain	Limit value – 8 hours: 10 mg/m ³
Switzerland	Limit value – 8 hours: 3 mg/m ³ respirable aerosol
USA	NIOSH: Limit value – 8 hours: 10 mg/m ³ total dust, 5 mg/m ³ respirable aerosol OSHA: Limit value – 8 hours: 15 mg/m ³ total dust, 5 mg/m ³ respirable dust
Starch	
Australia	Limit value – 8 hours: 10 mg/m ³ inhalable dust
Belgium	Limit value – 8 hours: 10 mg/m ³
Canada	Alberta, Ontario: Limit value – 8 hours: 10 mg/m ³ Québec: Limit value – 8 hours: 10 mg/m ³ total dust
Ireland	Limit value – 8 hours: 10 mg/m ³ inhalable fraction, 4 mg/m ³ respirable fraction

New Zealand	Limit value – 8 hours: 10 mg/m ³ inhalable dust
Singapore	Limit value – 8 hours: 10 mg/m ³
South Korea	Limit value – 8 hours: 10 mg/m ³
Spain	Limit value – 8 hours: 10 mg/m ³ inhalable aerosol
Switzerland	Limit value – 8 hours: 3 mg/m ³ respirable aerosol
USA	NIOSH: Limit value – 8 hours: 10 mg/m ³ total dust, 5 mg/m ³ respirable aerosol OSHA: Limit value – 8 hours: 15 mg/m ³ total dust, 5 mg/m ³ respirable dust
United Kingdom	Limit value – 8 hours: 10 mg/m ³ inhalable aerosol, 4 mg/m ³ respirable aerosol
Particulates not otherwise regulated	
Belgium	Limit value – 8 hours: 10 mg/m ³ total, 3 mg/m ³ respirable fraction
Canada	Alberta: Limit value – 8 hours: 10 mg/m ³ total, 3 mg/m ³ respirable Ontario: Limit value – 8 hours: 10 mg/m ³ inhalable particulate matter, 3 mg/m ³ respirable particulate matter Québec: Limit value – 8 hours: 10 mg/m ³ total dust
New Zealand	Limit value – 8 hours: 10 mg/m ³ inhalable aerosol, 3 mg/m ³ respirable aerosol
Singapore	Limit value – 8 hours: 10 mg/m ³
South Korea	Limit value – 8 hours: 10 mg/m ³ respirable fraction
USA	OSHA: Limit value – 8 hours: 15 mg/m ³ total dust, 5 mg/m ³ respirable dust

8.2 Exposure controls

Appropriate engineering controls	Local exhaust ventilation when excessive dust is produced to comply with worker exposure limits.
Individual protection measures	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary. Cotton or cotton/synthetic overalls or coveralls and gloves are normally suitable. Footwear appropriate to the task. Fully functional and serviced respirators may be worn in accordance with site risk assessment. For U.S. work sites where respiratory protection is required, ensure that a respiratory protection program meeting 29 CFR 1910.134 requirements is in place.
Environmental exposure controls	No further specific information.

**SECTION 9:
PHYSICAL AND CHEMICAL PROPERTIES**
9.1 Information on basic physical and chemical properties

Appearance	Grey, grey white or white solid product.
Odour	Odourless.
Odour threshold	Not applicable.
pH	Neutral.
Melting point/ freezing point	Melting point: undetermined.
Initial boiling point and boiling range	Boiling point: undetermined.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability	Not flammable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	Poured: 1.3 kg/m ³ . Tapped: 1.4 kg/m ³ .
Solubility	Soluble.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not self-igniting.
Decomposition temperature	Not determined.
Viscosity	Not applicable.
Explosive properties	Not determined.
Oxidising properties	Not determined.

9.2 Other information
Particle size

2–4 mm (granular)

**SECTION 10:
STABILITY AND REACTIVITY**

10.1 Reactivity	Stable and non-reactive. No decomposition if used according to specifications.
10.2 Chemical stability	Stable and non-reactive. No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions	No dangerous reactions known.
10.4 Conditions to avoid	Do not overheat.
10.5 Incompatible materials	No incompatible materials known.
10.6 Hazardous decomposition products	Hazardous decomposition products may include sulphur oxides, magnesium oxide.

**SECTION 11:
TOXICOLOGICAL INFORMATION**
11.1 Information on toxicological effects

Acute toxicity	Not classified. Ingestion of large amounts may cause gastro-intestinal irritation. Inhalation may cause discomfort to the nasal passage.
Skin corrosion/irritation	Prolonged contact may cause dermatitis.
Serious eye damage/irritation	May cause short-term discomfort due to mechanical action.
Respiratory or skin sensitisation	No known effect.
Germ cell mutagenicity	Not classified, a non-genotoxic product.
Carcinogenicity	Not classified, a non-genotoxic product.
Reproductive toxicity	Not classified, a non-genotoxic product.
STOT-single exposure	No known effect.

STOT-repeated exposure	No known effect.
Aspiration hazard	No known effect.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	No further relevant information available for aquatic toxicity.
12.2 Persistence and degradability	A naturally occurring mineral, therefore no biodegradation tests are applicable.
12.3 Bio accumulative potential	Does not accumulate in organisms.
12.4 Mobility in soil	No relevant information.
12.5 Results of PBT and vPvB assessment	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
12.6 Other adverse effects	No relevant information.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Disposal of this product should at all times comply with the requirements of environmental protection and waste disposal legislation. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible in accordance with local regulation. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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SECTION 14: TRANSPORT INFORMATION

14.1 UN number	None.
14.2 UN proper shipping name	None.
14.3 Transport hazard classes	Not classified as hazardous for transport.
14.4 Packing group	None.
14.5 Environmental hazards	None.

14.6 Special precautions for user	None.
14.7 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	No further relevant information.
15.2 Chemical safety assessment	A chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

16.1 Abbreviations	<p>IBC: International Bulk Chemical Code.</p> <p>MARPOL: International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.</p> <p>PBT: persistent, bio accumulative, toxic chemical.</p> <p>vPvB: very persistent, very bio accumulative chemical.</p>
16.2 Terms and conditions	<p>To the best of Anglo American Woodsmith Ltd knowledge and belief product is non-hazardous and does not require an LC50/LD50 assessment. Anglo American Woodsmith Ltd makes no representation, warranty or guarantee as to the information's accuracy, reliability, completeness or timeliness. It is the user's responsibility to determine the suitability and completeness of such information for the users own particular use or purposes. Anglo American Woodsmith Ltd does not accept any liability or any loss or damages that may occur from the use of this information.</p>
16.3 Contact information	<p>Email: cropnutrients.commercial@angloamerican.com</p> <p>Registered address: Anglo American Global Headquarters 17 Charterhouse Street London EC1N 6RA, UK</p> <p>Company registered number: 04948435</p>

**SECTION 17:
EMERGENCY CONTACTS**

Crop Nutrients, Anglo American	Stacey.Bean@angloamerican.com
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National Poison Information Service

Americas	USA		
		Washington Poison Center	Emergency telephone: +1 800-222-1222
			Administrative telephone: +1 206 517 2350
			Email: poisoncenter@fpicn.org
			Website: www.wapc.org
			Address: Washington Poison Center 155 NE 100th Street Seattle 98125-8007
			Access: 24 hours, open to public
		Florida Poison Information Center	Emergency telephone: +1 800-222-1222
			Administrative telephone: +1 813 844 7044
			Email: poisoncenter@fpicn.org
			Website: www.poisoncentertampa.org
Address: Florida Poison Information Center – Tampa Tampa General Hospital 1 Tampa General Circle Tampa, FL 33601			
		Access: 24 hours, open to public	
	Brazil	Hospital Vital Brazil	Emergency telephone: +55 11 3726 7962
			Administrative telephones: +55 11 3726 7222

Americas	Brazil		Email: hospital@butantan.gov.br
			Website: www.butantan.gov.br
			Address: Hospital Vital Brazil Av Vital Brazil 1500 São Paulo 05503-900
			Access: 24 hours, open to public
		Centro de Informações Antiveneno - CIAVE	Emergency telephone: 0800 284 4343
		Administrative telephones: +55 71 3387 3414	
		Email: ciave.diret@yahoo.com.br	
		Website: www.saude.ba.gov.br/ciave	
		Address: Centro de Informações Antiveneno – CIAVE Hospital Geral Roberto Santos Rue Direta do Saboeiro Estrada velha do Saboeiro, s/n° Cabula Salvador, 41150-000	
		Access: 24 hours, open to public	
Europe	United Kingdom	National Poisons Information Service (Newcastle Unit)	Emergency telephone: 999
			Administrative telephones: +44 191 2606182/ +44 191 2606180
			Email: newcastlenpis@nuth.nhs.uk
			Website: www.nyrdtc.nhs.uk/Services/poisons/poisons.html
			Address: National Poisons Information Service (Newcastle Unit) Wolfson Unit, Claremont Place Newcastle Upon Tyne NE2 4HH
			Access: 24 hours, not available to the public

Europe	Netherlands	National Poisons Information Centre, The Netherlands	Emergency telephone: +31 (0)30 274 88 88
			Administrative telephones: +31 (0)88 755 85 61
			Email: vergiftigen.info@umcutrecht.nl
			Website: www.vergiftigen.info
			Address: National Poisons Information Centre, The Netherlands University Medical Centre Utrecht Postbus 85500 Utrecht 3508 GA
			Access: 24 hours, not available to the public
	Spain	Servicio de Información Toxicológica	Emergency telephone: +34 91 562 0420
			Administrative telephones: +34 91 768 9800
			Email: sit@mju.es
			Website: www.administraciondejusticia.gob.es/paj/publico/ciudadano/informacion_institucional/organismos/instituto_nacional_de_toxicologia_y_ciencias_forenses/servicios/info_toxicologica
			Address: Servicio de Información Toxicológica Instituto Nacional de Toxicología y Ciencias Forenses Jose Echegaray nº 4 Las Rozas Madrid 28232
			Access: 24 hours, available to the public
	Italy	Centro Antiveleni Rome	Emergency telephone: 112
			Administrative telephones: +39 6 499 70 698

		<p>Address: Centro Antiveleni Rome Istituto di Anestesiologia E Rianimazione Università Degli Studi de Roma La Sapienza, Viale del Policlinico Rome, 155</p>
		<p>Access: 24 hours, available to the public</p>
Germany	Clinical Toxicology and Berlin Poison Information Centre	<p>Emergency telephone: +49 30 192 40</p> <p>Administrative telephones: +49 30 3068 6711</p> <p>Email: mail@giftnotruf.de</p> <p>Website: www.giftnotruf.de</p> <p>Address: Clinical Toxicology and Berlin Poison Information Centre Institute of Toxicology Oranienburger Str 285 Berlin, 13437</p> <p>Access: 24 hours, available to the public</p>
France	Centre antipoison et de toxicovigilance de Paris	<p>Emergency telephone: +33 (0)1 40 05 48 48</p> <p>Administrative telephones: +33 (0)1 40 05 43 28</p> <p>Email: cap.paris@lrb.aphp.fr</p> <p>Website: www.centres-antipoison.net</p> <p>Address: Centre antipoison et de toxicovigilance de Paris Hôpital Fernand Widal 200 rue du Faubourg St Denis Paris, 75010</p> <p>Access: 24 hours, available to the public</p>