

# MATERIAL SAFETY DATA SHEET



# POLY4

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

### 1.1 Product identifier

<b>Product name</b>	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

<b>Applications</b>	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

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

### 1.4 Emergency contact

<b>In case of emergency contact</b>	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

<b>Classification according to Regulation (EC) No 1272/2008 (CLP)</b>	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)

<b>Hazard pictograms</b>	None.
<b>Signal words</b>	None.
<b>Hazard statements</b>	None.
<b>Precautionary statements</b>	None.

## SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

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

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of First Aid measures

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

#### 4.2 Most important symptoms and effects, both acute and delayed

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

<b>5.1 Extinguishing media</b>	Use an extinguishing media suitable for the fire source.
<b>5.2 Special hazards arising from the substance or mixture</b>	No specific fire hazards.
<b>5.3 Protection for firefighters</b>	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

<b>6.1 Personal precautions, protective equipment, and emergency procedures</b>	Wear dust mask if dust is airborne. Use gloves with protracted exposure.
<b>6.2 Environmental precautions</b>	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.
<b>6.3 Methods and materials for containment for cleaning up</b>	No specific information.

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

<b>7.1 Precautions for safe handling</b>	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.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	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.
<b>7.3 Specific end use(s)</b>	No additional information.

## SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

### 8.1 Control parameters

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

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

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

## 8.2 Exposure controls

<b>Appropriate engineering controls</b>	Local exhaust ventilation when excessive dust is produced to comply with worker exposure limits.
<b>Individual protection measures</b>	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.
<b>Environmental exposure controls</b>	No further specific information.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

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

## 9.2 Other information

Particle size

2–4 mm (granular)

## SECTION 10: STABILITY AND REACTIVITY

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

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

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

<b>STOT-repeated exposure</b>	No known effect.
<b>Aspiration hazard</b>	No known effect.

## SECTION 12: ECOLOGICAL INFORMATION

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

## SECTION 13: DISPOSAL CONSIDERATIONS

<b>13.1 Waste treatment methods</b>	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

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

<b>14.6 Special precautions for user</b>	None.
<b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	Not applicable.

## SECTION 15: REGULATORY INFORMATION

<b>15.1 Safety, health, and environmental regulations/ legislation specific for the substance or mixture</b>	No further relevant information.
<b>15.2 Chemical safety assessment</b>	A chemical safety assessment has not been carried out.

## SECTION 16: OTHER INFORMATION

<b>16.1 Abbreviations</b>	<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>
<b>16.2 Terms and conditions</b>	<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>
<b>16.3 Contact information</b>	<p><b>Email:</b> <a href="mailto:cropnutrients.commercial@angloamerican.com">cropnutrients.commercial@angloamerican.com</a></p> <p><b>Registered address:</b>          Anglo American Global Headquarters          17 Charterhouse Street          London          EC1N 6RA, UK</p> <p><b>Company registered number:</b> 04948435</p>

**SECTION 17:  
EMERGENCY CONTACTS**

<b>Crop Nutrients, Anglo American</b>	Stacey.Bean@angloamerican.com
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**National Poison Information Service**

<b>Americas</b>	<b>USA</b>		
		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	
	<b>Brazil</b>	Hospital Vital Brazil	Emergency telephone: +55 11 3726 7962
			Administrative telephones: +55 11 3726 7222

<b>Americas</b>	<b>Brazil</b>		Email: <a href="mailto:hospital@butantan.gov.br">hospital@butantan.gov.br</a>
			Website: <a href="http://www.butantan.gov.br">www.butantan.gov.br</a>
			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: <a href="mailto:ciave.diret@yahoo.com.br">ciave.diret@yahoo.com.br</a>	
		Website: <a href="http://www.saude.ba.gov.br/ciave">www.saude.ba.gov.br/ciave</a>	
		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	
<b>Europe</b>	<b>United Kingdom</b>	National Poisons Information Service (Newcastle Unit)	Emergency telephone: 999
			Administrative telephones: +44 191 2606182/ +44 191 2606180
			Email: <a href="mailto:newcastlenpis@nuth.nhs.uk">newcastlenpis@nuth.nhs.uk</a>
			Website: <a href="http://www.nyrdtc.nhs.uk/Services/poisons/poisons.html">www.nyrdtc.nhs.uk/Services/poisons/poisons.html</a>
			Address: National Poisons Information Service (Newcastle Unit) Wolfson Unit, Claremont Place Newcastle Upon Tyne NE2 4HH
			Access: 24 hours, not available to the public

<b>Europe</b>	<b>Netherlands</b>	National Poisons Information Centre, The Netherlands	Emergency telephone: +31 (0)30 274 88 88
			Administrative telephones: +31 (0)88 755 85 61
			Email: <a href="mailto:vergiftigen.info@umcutrecht.nl">vergiftigen.info@umcutrecht.nl</a>
			Website: <a href="http://www.vergiftigen.info">www.vergiftigen.info</a>
			Address: National Poisons Information Centre, The Netherlands University Medical Centre Utrecht Postbus 85500 Utrecht 3508 GA
			Access: 24 hours, not available to the public
	<b>Spain</b>	Servicio de Información Toxicológica	Emergency telephone: +34 91 562 0420
			Administrative telephones: +34 91 768 9800
			Email: <a href="mailto:sit@mju.es">sit@mju.es</a>
			Website: <a href="http://www.administraciondejusticia.gob.es/paj/publico/ciudadano/informacion_institucional/organismos/instituto_nacional_de_toxicologia_y_ciencias_forenses/servicios/info_toxicologica">www.administraciondejusticia.gob.es/paj/publico/ciudadano/informacion_institucional/organismos/instituto_nacional_de_toxicologia_y_ciencias_forenses/servicios/info_toxicologica</a>
			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
	<b>Italy</b>	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>
<b>Germany</b>	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>
<b>France</b>	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>