

SAFETY DATA SHEET

Brexil Duo

SECTION 1: Identification of the substance/mixture and of the company/u	Indertaking
1.1. Product identifier	
Product form: MixtureTrade name: Brexil DuoProduct code: 12496	
1.2. Relevant identified uses of the substance or mixture and uses advised against	
1.2.1. Relevant identified uses	
Use of the substance/mixture : Fertilizer	
1.2.2. Uses advised against	
No additional information available	ANTITITU
1.3. Details of the supplier of the safety data sheet Produced and packed by: VALAGRO Spa Via Cagliari, 1 Zona Industriale 66041 Atessa (CH) ITALY Tel. (+39) 08728811 Fax (+39) 0872881382 www.valagro.com	
Distributed and guaranteed by: Campbells Fertilisers Australasia 18 Raymond Road, Laverton North, Victoria, 3026 Phone: (03) 9931 2211 Fax: (03) 9931 2201 www.campbellsfert.com.au	
Competent person responsible for the safety data sheet: regulatory@valagro.com	
1.4. Emergency telephone number	
Poison Information Centre - Telephone: 131126 (Australia wide – 24HRS)	
SECTION 2: Hazards identification	
2.1. Classification of the substance or mixture	
Classification according to the Hazardous Substances (Classification) Notice 2017 of the HSNO A	Act, 1996:
HSNO Classification: 8.3A - Substances that are corrosive to ocular tissue 9.1B - Substances that are ecotoxic in the aquatic environment (Chronic)	
Hazard statement codes H318 - Causes serious eye damage H411 - Toxic to aquatic life with long lasting effects	
Precautionary statement codes – Prevention: P101 If medical advice is needed, have product container or label at hand P102 - Keep out of reach of children. P103 Read label before use P273 - Avoid release to the environment P280 - Wear protective gloves, eye protection, face shield	

Precautionary statement codes – Response:

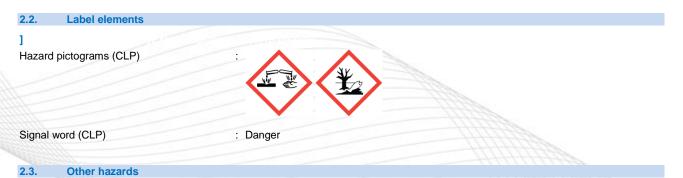


P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or a doctor/physician

Precautionary statement codes - Disposal:

P501 - Dispose of contents/container to comply with applicable local, national and international regulation.



This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Approval Status (NZIoC)
Calcium formate	(CAS No) 544-17-2	>= 40 - < 50	HSNO Approval Code HSR002800
Manganese(II) sulfate	(CAS No) 7785-87-7	< 1	HSNO Approval Code HSR003945
Zinc sulphate	(CAS No) 7733-02-0	< 1	HSNO Approval Code HSR003279
copper sulphate	(CAS No) 7758-98-7	< 1	HSNO Approval Code HSR003117

Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measu	ires
First-aid measures general	: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of breathing difficulties administer oxygen. In case of irregular breathing or respiratory arrest provide artificial respiration. Seek medical advice.
First-aid measures after skin contact	: Remove contaminated clothing immediately and dispose of safely. Wash skin thoroughly with mild soap and water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Protect uninjured eye.



First-aid measures after ingestion	 If swallowed, rinse mouth with water (only if the person is conscious). Give water to drink if victim completely conscious/alert. Do not induce vomiting. Obtain medical attention or call a POISON CENTER (Ph: Australia 131 126; New Zealand 0800 764 766).
4.2. Most important symptoms ar	nd effects, both acute and delayed
Symptoms/injuries after inhalation	: Inhalation may cause irritation, cough, shortness of breath.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation. Symptoms include redness, itching, and burning of the skin.
Symptoms/injuries after eye contact Symptoms/injuries after ingestion	: Causes serious eye damage. Pain. Redness. : May cause gastric irritation. Vomiting. stomach pain.
4.3. Indication of any immediate	medical attention and special treatment needed
No additional information available	
SECTION 5: Fire-fighting meas	sures
5.1. Extinguishing media	
Suitable extinguishing media	: Carbon dioxide (CO2). Water. Foam. Powder.
5.2. Special hazards arising from	the substance or mixture
Fire hazard	: Do not breathe fumes.
Explosion hazard	: Explosive dust-air mixtures may form.
Hazardous decomposition products in ca of fire	se : Carbon oxides (CO and CO2).
5.3. Advice for firefighters Precautionary measures fire	· Evenuete the personnel away from the fumes
	 Evacuate the personnel away from the fumes. Move undamaged containers from immediate hazard area if it can be done safely.
Firefighting instructions Protective equipment for firefighters	 Extra personal protection: complete protective clothing including self-contained breathing apparatus.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazchem Code	: 2Z
SECTION 6: Accidental release	e measures
6.1. Personal precautions, protect	tive equipment and emergency procedures
6.1.1. For non-emergency personn	el
Protective equipment	: Do not attempt to take action without suitable protective equipment. Wear suitable
Emergency procedures	protective clothing, gloves and eye/face protection. Alert emergency personnel. Eliminate all ignition sources if safe to do so. Provide
Measures in case of dust release	adequate ventilation. : Dust production: dust mask with filter type P2.
6.1.2. For emergency responders	
Protective equipment	: Wear suitable protective clothing, gloves and eye/face protection. Avoid breathing
Emergency procedures	 dust/fume/gas/mist/vapours/spray. Dust production: dust mask with filter type P2. Evacuate unnecessary personnel. Avoid generation of dust. Dust may form explosive mixture in air. Eliminate all ignition sources if safe to do so.
6.2. Environmental precautions	
Avoid release to the environment. Notify	authorities if liquid enters sewers or public waters.
6.3. Methods and material for cor	ntainment and cleaning up
For containment Methods for cleaning up	 Stop leak if safe to do so. Ventilate affected area. Wear personal protection equipment. Minimize generation of dust. Wash with plenty of soap and water. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Consult the appropriate authorities about waste disposal.

Other information

: Do not allow uncontrolled discharge of product into the environment.



6.4. Reference to other sections

For disposal of residues refer to section 13 : Disposal considerations. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage	
7.1. Precautions for safe hand	lling
Precautions for safe handling	 Avoid contact with skin and eyes. Avoid breathing dust, fume, mist, vapours. Minimize generation of dust. Keep away from sources of ignition - No smoking. Do not re-use empty containers without proper cleaning or reconditioning.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
7.2. Conditions for safe stora	ge, including any incompatibilities
Storage conditions	: Keep in original containers. Store tightly closed in a dry, cool and well-ventilated place. Keep out of direct sunlight. Use care during processing to minimize generation of dust. Explosive dust-air mixtures may form.
Incompatible products Heat and ignition sources Information on mixed storage	 Strong bases. Strong acids. Oxidising agents. reducing agents. Keep away from open flames, hot surfaces and sources of ignition. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

New Zealand Workplace Exposure Standard:

No value assigned for any of the ingredients by the New Zealand Department of Labour (Health & Safety).

Manganese(II) sulfate (778	35-87-7)		
EU	IOELV TWA (mg/m ³)	0.2 mg/m ³ Inhalable fraction	
Belgium	Limit value (mg/m ³)	0.2 mg/m ³	
Bulgaria	OEL TWA (mg/m ³)	0.3 mg/m ³	
Bulgaria	OEL STEL (mg/m³)	3 mg/m ³	
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	0.5 mg/m ³	
Cyprus	OEL TWA (mg/m ³)	0.5 mg/m ³	
Czech Republic	Expoziční limity (PEL) (mg/m ³)	1 mg/m ³	
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	2 mg/m ³	
Estonia	OEL TWA (mg/m³)	0.2 mg/m ³	
Finland	HTP-arvo (8h) (mg/m ³)	0.02 mg/m ³ (inhalable dust)	
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	0.02 mg/m³	
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	1 mg/m ³	
Greece	OEL TWA (mg/m ³)	5 mg/m ³	
Ireland	OEL (8 hours ref) (mg/m ³)	0.2 mg/m ³	
Lithuania	IPRV (mg/m ³)	1 mg/m ³ Inhalable fraction	
Lithuania	TPRV (mg/m³)	0.5 mg/m ³ E: respirable fraction	
Poland	NDS (mg/m³)	0.2 mg/m ³ Inhalable fraction	
Portugal	OEL TWA (mg/m ³)	0.2 mg/m ³	
Slovakia	NPHV (priemerná) (mg/m³)	0.5 mg/m ³	



Manganese(II) sulfa	ate (7785-87-7)		
Slovenia	OEL TWA (mg/r	³) 0.5 mg/m ³	
Spain	VLA-ED (mg/m ³	0.2 mg/m ³	
Sweden	nivågränsvärde	(NVG) (mg/m ³)	0.1 mg/m ³ respirable dust
USA - ACGIH	ACGIH TWA (m		0.1 mg/m ³
USA - ACGIH	ACGIH STEL (m		0.02 mg/m ³
copper sulphate (7)			
Austria	MAK (mg/m ³)		1 mg/m ³
Austria	MAK (mg/m/) MAK Short time	value (ma/m3)	
Finland			4 mg/m ³
	OEL Ceiling (mg		1 mg/m ³
Netherlands	Grenswaarde TO		0.1 mg/m ³
Sweden	nivågränsvärde	(NVG) (mg/m³)	1 mg/m ³
Switzerland	VME (mg/m ³)		0.1 mg/m ³
Switzerland	VLE (mg/m ³)		0.2 mg/m ³
Calcium formate- (544-17-2)		
DNEL/DMEL (Worke			
Acute - systemic effe		4780 mg/kg bodyweight	(day
Acute - systemic effe		337 mg/m ³	
Acute - local effects,		16.7	
Long-term - systemic		4780 mg/kg bodyweight	'day
Long-term - systemic		337 mg/m ³	
DNEL/DMEL (Gener			
Acute - systemic effe		2390 mg/kg bodyweight	
Acute - systemic effe		83.2 mg/m ³	
Acute - systemic effe	ects, oral	23.9 mg/kg bodyweight	
Acute - local effects,	dermal	8.3 mg/cm ²	
Long-term - systemic	c effects, inhalation	83.2 mg/m ³	
Long-term - systemic	c effects, dermal	2390 mg/kg bodyweight	/day
Long-term - local eff	ects, dermal	8.3 mg/cm ²	
PNEC (Water)		÷	
PNEC aqua (freshwa	ater)	2 mg/l	
PNEC aqua (marine	water)	0.2 mg/l	
PNEC aqua (intermittent, freshwater) 10 mg/l			
PNEC (Sediment)			
PNEC sediment (free	shwater)	13.4 mg/kg dwt	
PNEC sediment (ma	arine water)	1.34 mg/kg dwt	
Managara			Venin (1)
Manganese(II) sulfa			
DNEL/DMEL (Worke	,	0.00444.ms.ml.m.h.m.h.m.h.m.h.m.h.m.h.m.h.m.h.m.h.	nin k (de
Long-term - systemic		0.00414 mg/kg bodyweight/day	
Long-term - systemic	c effects, inhalation	0.2 mg/m ³	

Long-term - systemic effects, inhalation	0.2 mg/m ³	2000000
DNEL/DMEL (General population)		
Long-term - systemic effects, inhalation	0.043 mg/m ³	
Long-term - systemic effects, dermal	0.0021 mg/kg bodyweight/day	
PNEC (Water)		
PNEC aqua (freshwater)	0.0128 mg/l	
PNEC aqua (marine water)	0.0004 mg/l	
PNEC aqua (intermittent, freshwater)	0.03 mg/l	



Manganese(II) sulfate (7785-87-7)	
PNEC (Sediment)	
PNEC sediment (freshwater)	0.0114 mg/kg dwt
PNEC sediment (marine water)	0.00114 mg/kg dwt
PNEC (Soil)	
PNEC soil	25.1 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	56 mg/l

Zinc sulphate (7733-02-0)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	500 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	50 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1,3 mg/m ³
Long-term - systemic effects, dermal	500 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,0206 mg/l
PNEC aqua (marine water)	0,0061 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	235,6 mg/kg dwt
PNEC sediment (marine water)	113 mg/kg dwt
PNEC (Soil)	
PNEC soil	106,8 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	0,052 mg/l

copper sulphate (7758-98-7)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	137 mg/kg bodyweight/day	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	0.041 mg/kg bodyweight/day	
PNEC (Water)	•	
PNEC aqua (freshwater)	0.0078 mg/l	
PNEC aqua (marine water)	0.0052 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	87 mg/kg dwt	
PNEC sediment (marine water)	676 mg/kg dwt	N
PNEC (Soil)		
PNEC soil	65 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	0.23 mg/l	



8.2. **Exposure controls**

Appropriate engineering controls:

Provide adequate ventilation.

Personal protective equipment:

Safety glasses. Gloves. Protective clothing. Dust production: dust mask with filter type P2.

Materials for protective clothing:

Rubbers. PVC (Polyvinyl chloride). Natural fibres (e.g. cotton)

Hand protection:

Chemical resistant gloves (according to European standard NF EN 374 or equivalent). Protective gloves made of rubber or PVC. Break through time: ≥ 480 min. Thickness of glove material: 0.7 mm

Eye protection:

Wear eye glasses with side protection according to EN 166

Skin and body protection:

Chemical resistant protective apron/clothing (tested to EN 14605 or equivalent)

Respiratory protection:

Wear a respirator conforming to EN140 with Type A/P2 filter or better. particle filter device (DIN EN 143)



SECTION 9: Physical and chemical properties

9.1. Information on basic physical a	nd	chemical properties
Physical state	:	Solid
Appearance Colour	:	Granular solid. brown.
Odour	:	coffee.
Odour threshold	:	No data available
рН	:	No data available
pH solution Relative evaporation rate (butylacetate=1)	:	7.4 1% (t = 20°C) No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	not applicable, solid
Flash point	:	not applicable, solid
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available



Vapour pressure	: not applicable, solid
Vapour pressure at 50 °C Relative vapour density at 20 °C	 not applicable, solid not applicable, solid
Relative vapour density at 20°C	
Relative density	: No data available
Density	: 0.7 kg/l
Solubility	: Water: 1 g/l @ 20 °C
Log Pow	: No data available
Viscosity, kinematic	: not applicable, solid
Viscosity, dynamic	: No data available
Explosive properties	: Not expected to be explosive as none of the components is classified as explosive.
Oxidising properties	: None of the components is classified for oxidizing properties.
Explosive limits	: No data available

9.2. Other information

No add	litional information available	
SECT	FION 10: Stability and reactivity	
10.1.	Reactivity	
No add	ditional information available	
10.2.	Chemical stability	
Stable	under normal conditions.	
10.3.	Possibility of hazardous reactions	
None u	under normal conditions. No polymerization.	
10.4.	Conditions to avoid	
Overhe source.	eating. Avoid generation of dust. Accumulation of airborne dusts may present an expl	losion hazard in the presence of an ignition
10.5.	Incompatible materials	
Oxidisir	ng agents. reducing agents. Strong acids. Strong bases.	
10.6.	Hazardous decomposition products	

During a fire: Sulfur oxides. Carbon oxides (CO, CO2). Nitrogen oxides (NOx). Metal oxides.

SECTION 11: Toxicol	ogical information	
11.1. Information on to		
Acute toxicity	: Not classified	
12496		June 1777
LD50 oral rat	> 2000 mg/kg (OECD guidelines TEST No 42	3)



.C50 inhalation rat (mg/l)	> 4.98 mg/l Griffiths DR (2010)
	·
Zinc sulphate (7733-02-0)	
LD50 dermal rat	> 2000 µl/kg Van Huygevoort (1999a)
Calcium formate- (544-17-2)	
LD50 oral rat	3050 mg/kg (OECD 401 method)
LD50 dermal rat	> 2000 mg/kg (OECD 402 method)
LC50 inhalation rat (mg/l)	0.67 mg/l/4h (EPA OTS 798.1150)
Skin corrosion/irritation	: Not classified (Conclusive but not sufficient for classification)
dditional information	: (OECD 439)
	: Causes serious eye damage.
dditional information	: (OECD 437 method)
Respiratory or skin sensitisation	: Not classified
	: Not classified
Carcinogenicity	: Not classified
Calcium formate- (544-17-2)	
NOAEL (chronic, oral, animal/male, 2 years)	2000 mg/kg bodyweight (OECD 453 method)
Reproductive toxicity	: Not classified
	: Not classified
TOT-repeated exposure	: Not classified
Coloium formata (EAA 47.2)	
Calcium formate- (544-17-2) NOAEL (oral, rat, 90 days)	3000 mg/kg bodyweight/day (OECD 408 method)
	1000 mg/kg bodyweight (OECD 407 method)
NOAEL (subacute, oral, animal/male, 28 days)	1000 mg/kg bodyweight (OECD 407 method)
spiration hazard	: Not classified
SECTION 12: Ecological information	
SECTION 12: Ecological information	
SECTION 12: Ecological information 2.1. Toxicity BREXIL DUO	
SECTION 12: Ecological information 2.1. Toxicity BREXIL DUO LC50 fish 1	> 100 mg/l Zebra fish 96h (OECD 203)
SECTION 12: Ecological information 2.1. Toxicity BREXIL DUO LC50 fish 1 EC50 Daphnia 1	> 100 mg/l Zebra fish 96h (OECD 203) 18.37 mg/l Daphnia Magna 48h (OECD 202)
SECTION 12: Ecological information 2.1. Toxicity BREXIL DUO LC50 fish 1	 > 100 mg/l Zebra fish 96h (OECD 203) 18.37 mg/l Daphnia Magna 48h (OECD 202) 12.5 mg/l Green Algae 72h (OECD 201)
SECTION 12: Ecological information 2.1. Toxicity BREXIL DUO LC50 fish 1 EC50 Daphnia 1	> 100 mg/l Zebra fish 96h (OECD 203) 18.37 mg/l Daphnia Magna 48h (OECD 202)
BREXIL DUO LC50 fish 1 EC50 Daphnia 1 EC50 72h Algae [mg/l] (1)	 > 100 mg/l Zebra fish 96h (OECD 203) 18.37 mg/l Daphnia Magna 48h (OECD 202) 12.5 mg/l Green Algae 72h (OECD 201)
SECTION 12: Ecological information 2.1. Toxicity BREXIL DUO LC50 fish 1 EC50 Daphnia 1 EC50 72h Algae [mg/l] (1) LOEC (acute) NOEC (acute)	 > 100 mg/l Zebra fish 96h (OECD 203) 18.37 mg/l Daphnia Magna 48h (OECD 202) 12.5 mg/l Green Algae 72h (OECD 201) 6.3 mg/l Green Algae 72h (OECD 201)
SECTION 12: Ecological information 2.1. Toxicity BREXIL DUO LC50 fish 1 EC50 Daphnia 1 EC50 72h Algae [mg/l] (1) LOEC (acute) NOEC (acute) Manganese(II) sulfate (7785-87-7)	 > 100 mg/l Zebra fish 96h (OECD 203) 18.37 mg/l Daphnia Magna 48h (OECD 202) 12.5 mg/l Green Algae 72h (OECD 201) 6.3 mg/l Green Algae 72h (OECD 201) 3.6 Green Algae 72h (OECD 201)
SECTION 12: Ecological information 2.1. Toxicity BREXIL DUO LC50 fish 1 EC50 Daphnia 1 EC50 72h Algae [mg/l] (1) LOEC (acute) NOEC (acute)	 > 100 mg/l Zebra fish 96h (OECD 203) 18.37 mg/l Daphnia Magna 48h (OECD 202) 12.5 mg/l Green Algae 72h (OECD 201) 6.3 mg/l Green Algae 72h (OECD 201)
SECTION 12: Ecological information 2.1. Toxicity BREXIL DUO LC50 fish 1 EC50 Daphnia 1 EC50 72h Algae [mg/l] (1) LOEC (acute) NOEC (acute) Manganese(II) sulfate (7785-87-7) NOEC chronic crustacea	 > 100 mg/l Zebra fish 96h (OECD 203) 18.37 mg/l Daphnia Magna 48h (OECD 202) 12.5 mg/l Green Algae 72h (OECD 201) 6.3 mg/l Green Algae 72h (OECD 201) 3.6 Green Algae 72h (OECD 201)
SECTION 12: Ecological information 2.1. Toxicity BREXIL DUO LC50 fish 1 EC50 Daphnia 1 EC50 72h Algae [mg/l] (1) LOEC (acute) NOEC (acute) Manganese(II) sulfate (7785-87-7)	 > 100 mg/l Zebra fish 96h (OECD 203) 18.37 mg/l Daphnia Magna 48h (OECD 202) 12.5 mg/l Green Algae 72h (OECD 201) 6.3 mg/l Green Algae 72h (OECD 201) 3.6 Green Algae 72h (OECD 201)
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12.2. Persistence and degradability

No additional information available



BREXIL DUO	
Bioaccumulative potential	Product does not contain any bioaccumulative substance.
Calcium formate- (544-17-2)	
Log Pow	-2.6 (OECD 107)
2.4. Mobility in soil	
BREXIL DUO	
Mobility in soil	In general, the mobility in the soil of the microelements in the mixture is influence by several factors such as pH, CO2 concentration, redox conditions, and availability of organic and inorganic complexing agents.
BREXIL DUO	
	the PBT criteria of REACH regulation appex XIII
This substance/mixture does not meet	the PBT criteria of REACH regulation, annex XIII the vPvB criteria of REACH regulation, annex XIII
This substance/mixture does not meet	
This substance/mixture does not meet This substance/mixture does not meet	the vPvB criteria of REACH regulation, annex XIII The components in this formulation do not meet the criteria for classification as

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

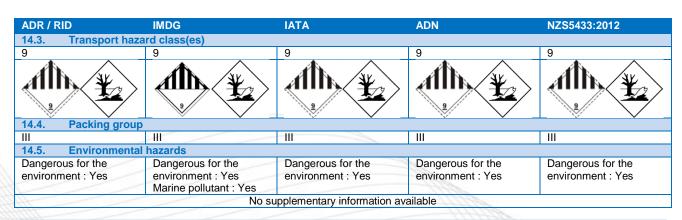
: Reuse or recycle following decontamination. External recovery and recycling of waste should comply with applicable local and/or national regulations.

SECTION 14: Transport information

In accordance with ADR / IATA / IMDG / RID / AND / NZS 5433:2012 Transport of Dangerous Goods on Land

ADR / RID	IMDG	ΙΑΤΑ	ADN	NZS5433:2012
14.1. UN number				
3077	3077	3077	3077	3077
14.2. UN proper ship	ping name	•		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	Environmentally hazardous substance, solid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Transport document des	scription	•		
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((manganese sulphate, zinc sulphate, copper sulphate)), 9, III, (E)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((manganese sulphate, zinc sulphate, copper sulphate)), 9, III, MARINE POLLUTANT	UN 3077 Environmentally hazardous substance, solid, n.o.s. ((manganese sulphate, zinc sulphate, copper sulphate)), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((manganese sulphate, zinc sulphate, copper sulphate)), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((manganese sulphate, zinc sulphate, copper sulphate)), 9, III





14.6. Special precautions for user

- Over	land	trans	port
Over	and	u ano	port

Classification code (ADR)	:	M7
Special provisions (ADR)	÷	274, 335, 601, 375
Limited quantities (ADR)	÷	5kg
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	÷	P002, IBC08, LP02, R001
Special packing provisions (ADR)	÷	PP12, B3
Mixed packing provisions (ADR)	÷	MP10
Portable tank and bulk container	:	T1, BK1, BK2
instructions (ADR)		
Portable tank and bulk container special	1	TP33
provisions (ADR)		
Tank code (ADR)	:	SGAV, LGBV
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	3
Special provisions for carriage - Packages	:	V13
(ADR)		
Special provisions for carriage - Bulk (ADR)	:	VC1, VC2
Special provisions for carriage - Loading,	:	CV13
unloading and handling (ADR)		
Hazard identification number (Kemler No.)	:	90
Orange plates	:	00
		90

Tunnel restriction code (ADR) EAC code Hazchem Code

- Transport by sea

Special provisions (IMDG)
Limited quantities (IMDG)
Excepted quantities (IMDG)
Packing instructions (IMDG)
Special packing provisions (IMDG)
IBC packing instructions (IMDG)
IBC special provisions (IMDG)
Tank instructions (IMDG)
Tank special provisions (IMDG)
EmS-No. (Fire)
EmS-No. (Spillage)
Stowage category (IMDG)
MFAG-No

3077

: 274, 335, 966, 967

T1, BK1, BK2, BK3

: E : 2Z : 2Z

5 kg
E1
P002, LP02
PP12
IBC08
B3

: TP33 : F-A : S-F : A : 171



- Air transport

- All transport	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y956
PCA limited quantity max net quantity	: 30kgG
(IATA)	ŭ
PCA packing instructions (IATA)	: 956
PCA max net quantity (IATA)	: 400kg
CAO packing instructions (IATA)	: 956
CAO max net quantity (IATA)	: 400kg
Special provisions (IATA)	: A97, A158, A179, A197
ERG code (IATA)	: 9L
- Inland waterway transport	
Classification code (ADN)	: M7
Special provisions (ADN)	: 274, 335, 61
Limited quantities (ADN)	: 5 kg
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T* B**
Equipment required (ADN)	: PP, A
Number of blue cones/lights (ADN)	: 0
Additional requirements/Remarks (ADN)	: * Only in the molten state. ** For carriage in bulk see also 7.1.4.1. ** * Only in the case
	of transport in bulk.
- Rail transport	
Classification code (RID)	: M7
Special provisions (RID)	274, 335, 601
Limited quantities (RID)	: 5kg
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P002, IBC08, LP02, R001
Special packing provisions (RID)	: PP12, B3
Mixed packing provisions (RID)	: MP10
Portable tank and bulk container	: T1, BK1, BK2
instructions (RID)	. 11, DN1, DN2
Portable tank and bulk container special	: TP33
	. 1833
provisions (RID)	
Tank codes for RID tanks (RID)	: SGAV, LGBV
Transport category (RID)	: 3
Special provisions for carriage – Packages	: W13
(RID)	NA44
Special provisions for carriage – Bulk (RID)	
Special provisions for carriage - Loading,	: CW13, CW31
unloading and handling (RID)	
Colis express (express parcels) (RID)	: CE11
Hazard identification number (RID)	: 90

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

New Zealand



Classification: :	Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.
National Chemical Inventories : (NZIoC)	All components are listed on the New Zealand Inventory of Chemicals
HSNO Ápproval Number (Group : Standard)	HSR002571. Fertiliser (Subsidiary Hazard) Group Standard 2006
Germany	
VwVwS Annex reference	: Water hazard class (WGK) 2, hazard to waters (Classification according to VwVwS, Annex 4)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)
Netherlands	
SZW-lijst van kankerverwekkende stoffer	n : Manganese(II) sulfate is listed
SZW-lijst van mutagene stoffen	: Manganese(II) sulfate is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoedin	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkelir	: copper sulphate is listed g
Denmark	
Recommendations Danish Regulation	: Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

SDS	Safety Data Sheet
	CAS - Chemical Abstracts Service
	GHS - Globally Harmonised System
	CSR - Chemical Safety Report
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
	PVC (Polyvinyl chloride).



PNEC	Predicted No-Effect Concentration
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

Other information

: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. It is the user's responsibility to take mentioned precaution measures and ensure that this information is complete and sufficient for the use of this product.

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4		
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1		
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1		
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2		
Eye Dam. 1	Serious eye damage/eye irritation, Category 1		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2		
H302	Harmful if swallowed		
H315	Causes skin irritation		
H318	Causes serious eye damage		
H319	Causes serious eye irritation		
H373	May cause damage to organs through prolonged or repeated exposure		
H400	Very toxic to aquatic life		
H410	Very toxic to aquatic life with long lasting effects		
H411	Toxic to aquatic life with long lasting effects		

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Eye Dam. 1	H318	Calculation method	
Aquatic Chronic 2	H411	Calculation method	

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product