

**Neutrog Australia** 

Chemwatch: **28-3470** Version No: **4.1.1.1** 

Safety Data Sheet according to WHS and ADG requirements

#### Chemwatch Hazard Alert Code: 2

Issue Date: 01/11/2019 Print Date: 05/05/2020 S.GHS.AUS.EN

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

#### **Product Identifier**

Product name	Neutrog Total Impact Pellets		
Synonyms	Not Available		
Other means of identification	Not Available		

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

Relevant identified uses Fertili

#### Details of the supplier of the safety data sheet

Registered company name	Neutrog Australia
Address	288 Mine Road Kanmantoo SA 5252 Australia
Telephone	+61 8 8538 3500
Fax	+61 8 8538 3522
Website	Not Available
Email	Not Available

#### **Emergency telephone number**

Association / Organisation	Neutrog Australia
Emergency telephone numbers	+61 8 8538 5077
Other emergency telephone numbers	0409728738, 131126 (AH)

#### **SECTION 2 HAZARDS IDENTIFICATION**

#### Classification of the substance or mixture

Poisons Schedule	Not Applicable
Classification [1]	Eye Irritation Category 2A
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

## Label elements

Hazard pictogram(s)



SIGNAL WORD WARNING

#### Hazard statement(s)

H319 Causes serious eye irritation.

#### Precautionary statement(s) Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.

#### Precautionary statement(s) 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.	
P337+P313	If eye irritation persists: Get medical advice/attention.	

#### Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

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Not Applicable

#### **SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

#### Substances

See section below for composition of Mixtures

#### Mixtures

CAS No	%[weight]	Name
Not Available	>30	composted chicken manure
7783-20-2	>30	ammonium sulfate
7778-80-5	>20	potassium sulfate
7783-28-0	<15	diammonium phosphate

#### **SECTION 4 FIRST AID MEASURES**

#### Description of first aid measures

Eye Contact	If this product comes in contact with the eyes:  • Wash out immediately with fresh running water.  • Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.  • Seek medical attention without delay; if pain persists or recurs seek medical attention.  • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs:  Immediately remove all contaminated clothing, including footwear.  Flush skin and hair with running water (and soap if available).  Seek medical attention in event of irritation.
Inhalation	<ul> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>
Ingestion	<ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### **SECTION 5 FIREFIGHTING MEASURES**

#### Extinguishing media

- ▶ There is no restriction on the type of extinguisher which may be used.
- ▶ Use extinguishing media suitable for surrounding area.

#### Special hazards arising from the substrate or mixture

Fire Incompatibility	<ul> <li>Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result</li> </ul>		
Advice for firefighters			
Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves in the event of a fire.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use fire fighting procedures suitable for surrounding area.</li> </ul>		
Fire/Explosion Hazard	<ul> <li>Non combustible.</li> <li>Not considered a significant fire risk, however containers may burn.</li> <li>Other decomposition products include:</li> <li>carbon monoxide (CO)</li> <li>carbon dioxide (CO2)</li> <li>nitrogen oxides (NOx)</li> <li>ammonia</li> <li>sulfur oxides (SOx)</li> <li>other pyrolysis products typical of burning organic material.</li> <li>May emit poisonous fumes.</li> <li>May emit corrosive fumes.</li> </ul>		
HAZCHEM	Not Applicable		

#### **SECTION 6 ACCIDENTAL RELEASE MEASURES**

#### Personal precautions, protective equipment and emergency procedures

See section 8

#### **Environmental precautions**

See section 12

#### Methods and material for containment and cleaning up

Minor Spills

- ► Clean up all spills immediately.
- Avoid contact with skin and eyes.

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	<ul> <li>Wear impervious gloves and safety glasses.</li> <li>Use dry clean up procedures and avoid generating dust.</li> </ul>
Major Spills	<ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Control personal contact with the substance, by using protective equipment and dust respirator.</li> <li>Prevent spillage from entering drains, sewers or water courses.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

#### **SECTION 7 HANDLING AND STORAGE**

#### Precautions for safe handling

Safe handling	<ul> <li>Limit all unnecessary personal contact.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Avoid contact with incompatible materials.</li> </ul>	
Other information	Store in original containers.     Keep containers securely sealed.     Store in a cool, dry area protected from environmental extrem	

Conditions for safe storage, including any incompatibilities			
Suitable container	Multi-ply paper bag with sealed plastic liner or heavy gauge plastic bag.  NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks. Packing as recommended by manufacturer.		
Storage incompatibility	Avoid contamination of water, foodstuffs, feed or seed.		

► Store away from incompatible materials and foodstuff containers.

#### **SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

#### **Control parameters**

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

Not Available

#### **EMERGENCY LIMITS**

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
ammonium sulfate	Ammonium sulfate	13 mg/m3	140 mg/m3	840 mg/m3
potassium sulfate	Potassium sulfate (2:1); (Dipotassium sulfate)	20 mg/m3	220 mg/m3	1,300 mg/m3
diammonium phosphate	Ammonium phosphate dibasic; (Diammonium phosphate)	20 mg/m3	210 mg/m3	1,300 mg/m3

Ingredient	Original IDLH	Revised IDLH
ammonium sulfate	Not Available	Not Available
potassium sulfate	Not Available	Not Available
diammonium phosphate	Not Available	Not Available

#### OCCUPATIONAL EXPOSURE BANDING

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
ammonium sulfate	E	≤ 0.01 mg/m³
diammonium phosphate	E	≤ 0.01 mg/m³
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.	

#### **Exposure controls**

# Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

#### Personal protection











#### Eye and face protection

- ► Safety glasses with side shields
- Chemical goggles.
   Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.

#### Skin protection

See Hand protection below

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Hands/feet protection	Wear general protective gloves, eg. light weight rubber gloves.
Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantities.  OTHERWISE:  Overalls.  Barrier cream.  Eyewash unit.

#### Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	-	PAPR-P1
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

<sup>\* -</sup> Negative pressure demand \*\* - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- ► The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- ▶ Use approved positive flow mask if significant quantities of dust becomes airborne.
- ▶ Try to avoid creating dust conditions.

#### **SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

# Information on basic physical and chemical properties Appearance | Brown pellets approximate

Appearance	Brown pellets approximately 6mm x 10mm; very slightly soluble in water.		
Physical state	Divided Solid	Relative density (Water = 1)	0.7 approx.
1 Hysical state	Divided Golid	Relative delisity (Water = 1)	ол арргох.
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Partly miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

#### **SECTION 10 STABILITY AND REACTIVITY**

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

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#### **SECTION 11 TOXICOLOGICAL INFORMATION**

Inhaled

Ingestion

**Skin Contact** 

Eye

Chronic

Information	on	toxicological	effects
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Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result

Allergic responses may result from inhalation of dust or mist from these products. These range from mild to severe and may involve pneumonia.

Accidental ingestion of the material may be damaging to the health of the individual. Ingestion may result in nausea, abdominal irritation, pain and diarrhoea

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung.

Neutrog Total Impact Pellets	TOXICITY  Not Available	IRRITATION  Not Available	
ammonium sulfate	TOXICITY  Oral (rat) LD50: >2000 mg/kg <sup>[2]</sup>	IRRITATION  Eye: no adverse effect observed (not irritating) <sup>[1]</sup>	
	TOXICITY	Skin: no adverse effect observed (not irritating) <sup>[1]</sup> IRRITATION	
potassium sulfate	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup> Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Not Available	
diammanium nhaanhata	TOXICITY  dermal (rat) LD50: >5000 mg/kg <sup>[1]</sup>	IRRITATION  Eye: no adverse effect observed (not irritating) <sup>[1]</sup>	
diammonium phosphate	Oral (rat) LD50: >5000 mg/kg <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>	
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise		

specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

For ammonium sulfate: **AMMONIUM SULFATE** 

Acute toxicity: Ammonium sulfate has relatively low acute toxicity. In healthy humans, inhaling high concentrations caused mild reduction in lung function. Animal testing has not shown ammonium sulfate to cause irritation to the skin and eyes. There is no available data on sensitization. Repeat dose toxicity: Testing in animals has not shown any chronic toxic effects, except for diarrhoea.

**POTASSIUM SULFATE** 

The acute toxicity of sodium sulfate has not been established, but existing data indicate very low acute toxicity. Very high doses cause severe diarrhea. Sodium sulfate is not irritating to the skin, and only slightly irritating to the eyes. It is highly unlikely to cause sensitizing effects. There is no data regarding genetic toxicity except for a single negative test.

**DIAMMONIUM PHOSPHATE** No significant acute toxicological data identified in literature search.

AMMONIUM SUI FATE & DIAMMONIUM PHOSPHATE Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.

Acute Toxicity	×	Carcinogenicity	X
Skin Irritation/Corrosion	X	Reproductivity	X
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

Legend:

X - Data either not available or does not fill the criteria for classification - Data available to make classification

#### **SECTION 12 ECOLOGICAL INFORMATION**

#### **Toxicity**

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Neutrog Total Impact Pellets	Not Available	Not Available	Not Available	Not Available	Not Available

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	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURC
	LC50	96	Fish	0.068mg	ı/L 4
ammonium sulfate	EC50	48	Crustacea	73.05mg	<sub>J</sub> /L 2
	EC50	96	Algae or other aquatic plants	Algae or other aquatic plants 254000mg/L	
	NOEC	216	Fish	0.064mg	<sub>J</sub> /L 4
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURC
potassium sulfate	LC50	96	Fish	Fish 3-550mg/L	
	EC50	48	Crustacea	Crustacea =890mg/L	
	EC50	72	Algae or other aquatic plants	=2900r	ng/L 1
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURC
	LC50	96	Fish	0.001-0.32r	ng/L 2
diammonium phosphate	EC50	48	Crustacea	>100mg/L	2
	EC50	72	Algae or other aquatic plants	>100mg/L	2
	NOEC	72	Algae or other aquatic plants	100mg/L	2
Legend:		,	IA Registered Substances - Ecotoxicological Inform S EPA, Ecotox database - Aquatic Toxicity Data 5	,	,

DO NOT discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ammonium sulfate	HIGH	HIGH

#### **Bioaccumulative potential**

Ingredient	Bioaccumulation	
ammonium sulfate	LOW (LogKOW = -2.2002)	

#### Mobility in soil

Ingredient	Mobility	
ammonium sulfate	LOW (KOC = 6.124)	

#### **SECTION 13 DISPOSAL CONSIDERATIONS**

#### Waste treatment methods

Product / Packaging disposal

- ► Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material)
- ▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

#### **SECTION 14 TRANSPORT INFORMATION**

#### Labels Required

Marine Pollutant	ollutant NO	
HAZCHEM	Not Applicable	

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

#### **SECTION 15 REGULATORY INFORMATION**

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

AMMONIUM SULFATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

POTASSIUM SULFATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

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Australia Inventory of Chemical Substances (AICS)

#### DIAMMONIUM PHOSPHATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

#### **National Inventory Status**

National Inventory	Status		
Australia - AICS	Yes		
Canada - DSL	Yes		
Canada - NDSL	No (ammonium sulfate; potassium sulfate)		
China - IECSC	Yes		
Europe - EINEC / ELINCS / NLP	Yes		
Japan - ENCS	Yes		
Korea - KECI	Yes		
New Zealand - NZIoC	Yes		
Philippines - PICCS	Yes		
USA - TSCA	Yes		
Taiwan - TCSI	Yes		
Mexico - INSQ	Yes		
Vietnam - NCI	Yes		
Russia - ARIPS	Yes		
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)		

#### **SECTION 16 OTHER INFORMATION**

Revision Date	01/11/2019
Initial Date	21/09/2011

#### **SDS Version Summary**

Version	Issue Date	Sections Updated
3.1.1.1	04/12/2017	Classification
4.1.1.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification

#### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### **Definitions and abbreviations**

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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