



# Safety Data Sheet

## YaraMila COMPLEX

UPDATED: 12 March 2020

### Section 1: SUBSTANCE IDENTIFICATION & SUPPLIER

<b>Product Name:</b>	YaraMila COMPLEX
<b>Other Names:</b>	All Purpose Slow Release
<b>Recommended Use:</b>	Fertiliser
<b>Company Identification:</b>	Morton Smith - Dawe Limited
<b>Address:</b>	396 Wigram Road, Halswell, Christchurch PO Box 37 - 139 Halswell
<b>Customer Centre:</b>	03 322 8117
<b>National Poisons Information Centre:</b>	0800 POISON ( 0800 764 766)
<b>Emergency Phone Number:</b>	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
<b>Transport Emergency Phone Number:</b>	111 - Tell operator what service is needed: Fire, Ambulance or Police

### Section 2: HAZARD IDENTIFICATION

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Not regulated for transport of Dangerous Goods.

<b>EPA Approval No:</b>	Fertilisers
<b>Pictograms</b>	
<b>Signal Word:</b>	<b>DANGER</b>

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.8A	H360	May damage fertility or the unborn child.	Repr. 1A
6.1D (oral)	H302	Harmful if swallowed.	
6.3B	H316	Causes mild skin irritation.	
6.9B	H371 + H373	May cause damage to organs through prolonged or repeated exposure.	
9.1D	H413	May cause long lasting harmful effects to aquatic life.	
9.3C	H433	Harmful to terrestrial vertebrates.	

Prevention Code	Prevention Statement
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust / fume.

Prevention Code	Prevention Statement
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.
P220	Keep away from clothing and other combustible materials.
P270	Do not eat, drink or smoke when using this product.

Response Code	Response Statement
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378	In case of fire: Use water spray/fog to extinguish.
P308+P311	IF exposed or concerned: Call a POISON CENTER/doctor/physician/first aider.
P314	Get medical advice/attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P330	Rinse mouth.

Storage Code	Storage Statement
P405	Store locked up.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities.

### Section 3: COMPOSITION IDENTIFICATION

INGREDIENT	CAS No.	CONTENT
potassium sulfate	7778-80-5	20-<25%
ammonium nitrate	6484-52-2	15-<20%
potassium nitrate	7757-79-1	12.5-<15%
ammonium sulfate	7783-20-2	10-<12.5%
ammonium phosphate, monobasic	7722-76-1	5-<7%
calcium phosphate, dibasic	7757-93-9	5-<7%
potassium phosphate, monobasic	7778-77-0	5-<7%
diammonium phosphate	7783-28-0	3-<5%
calcium fluoride	7789-75-5	2-<3%
sodium borate, pentahydrate	12179-04-3	0.1-<0.2%

### Section 4: FIRST AID MEASURES

Routes of Exposure:	
<b>If in eyes:</b>	Immediately hold eyelids apart and flush the eye continuously with 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. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
<b>If on skin</b>	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.

<b>If ingested:</b>	<p><b>IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.</b></p> <p>For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed.</p> <p>In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS.</p> <p>Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:  <b>INDUCE</b> vomiting with fingers down the back of the throat, <b>ONLY IF CONSCIOUS</b>. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.  <b>NOTE:</b> Wear a protective glove when inducing vomiting by mechanical means.</p>
<b>If Inhaled:</b>	Remove from contaminated area. Other measures are usually unnecessary.
<b>Notes to Doctor:</b>	Treat symptomatically

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

for phosphate salts intoxication:

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
- Ingestion of large quantities of phosphate salts (over 1.0 grams for an adult) may cause an osmotic catharsis resulting in diarrhoea and probable abdominal cramps. Larger doses such as 4-8 grams will almost certainly cause these effects in everyone. In healthy individuals most of the ingested salt will be excreted in the faeces with the diarrhoea and, thus, not cause any systemic toxicity. Doses greater than 10 grams hypothetically may cause systemic toxicity.
- Treatment should take into consideration both anionic and cation portion of the molecule.
- All phosphate salts, except calcium salts, have a hypothetical risk of hypocalcaemia, so calcium levels should be monitored.

The toxicity of nitrates and nitrites result from their vasodilating properties and their propensity to form methaemoglobin.

- Most produce a peak effect within 30 minutes.
- Clinical signs of cyanosis appear before other symptoms because of the dark pigmentation of methaemoglobin.
- Initial attention should be directed towards improving oxygen delivery, with assisted ventilation, if necessary. Hyperbaric oxygen has not demonstrated conclusive benefits.
- Institute cardiac monitoring, especially in patients with coronary artery or pulmonary disease.
- Hypotension should respond to Trendelenburg's position and intravenous fluids; otherwise dopamine may be needed.
- Naloxone, glucose and thiamine should be given if a multiple ingestion is suspected.
- Decontaminate using Ipecac Syrup for alert patients or lavage for obtunded patients who present within 2-4 hours of ingestion.
- Symptomatic patients with methaemoglobin levels over 30% should receive methylene blue. (Cyanosis alone, is not an indication for treatment). The usual dose is 1-2 mg/kg of a 1% solution (10 mg/ml) IV over 5 minutes; repeat, using the same dose if symptoms of hypoxia fail to subside within 1 hour.

### Section 5: FIRE FIGHTING MEASURES

<b>Hazard Type</b>	
<b>Hazardous Combustion Products:</b>	Non combustible. Not considered a significant fire risk, however containers may burn.
<b>Extinguishing Media:</b>	Based on surrounding materials.
<b>Protective Equipment:</b>	Wear breathing apparatus plus protective gloves in the event of a fire.
<b>HAZCHEM Code:</b>	None allocated.

### Section 6: ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures:</b>
See section 8
<b>Environmental precautions:</b>
See section 12

**Methods and material for containment and cleaning up:**

**Minor Spills:** Remove all ignition sources.  
 Clean up all spills immediately.  
 Avoid contact with skin and eyes.  
 Control personal contact with the substance, by using protective equipment.  
 Use dry clean up procedures and avoid generating dust.  
 Place in a suitable, labelled container for waste disposal.

**Major Spills:** Moderate hazard.

**CAUTION:** Advise personnel in area.  
 Alert Emergency Services and tell them location and nature of hazard.  
 Control personal contact by wearing protective clothing.  
 Prevent, by any means available, spillage from entering drains or water courses.  
 Recover product wherever possible.

**IF DRY:** Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. **IF WET:** Vacuum/shovel up and place in labelled containers for disposal.

**ALWAYS:** Wash area down with large amounts of water and prevent runoff into drains. If contamination of drains or waterways occurs, advise Emergency Services.

**Section 7: HANDLING AND STORAGE**


<b>Handling:</b>	<p>Avoid all personal contact, including inhalation.                  Wear protective clothing when risk of exposure occurs.                  Use in a well-ventilated area.                  Prevent concentration in hollows and sumps.  <b>DO NOT</b> enter confined spaces until atmosphere has been checked.  <b>DO NOT</b> allow material to contact humans, exposed food or food utensils.                  Avoid contact with incompatible materials.                  When handling, <b>DO NOT</b> eat, drink or smoke.                  Keep containers securely sealed when not in use.                  Avoid physical damage to containers.                  Always wash hands with soap and water after handling.                  Work clothes should be laundered separately. Launder contaminated clothing before re-use.                  Use good occupational work practice.                  Observe manufacturer's storage and handling recommendations contained within this SDS.                  Atmosphere should be regularly checked against established exposure standards to ensure safe working</p>
<b>Storage:</b>	<p>Store in original containers.                  Keep containers securely sealed.                  Store in a cool, dry area protected from environmental extremes.                  Store away from incompatible materials and foodstuff containers.                  Protect containers against physical damage and check regularly for leaks.                  Observe manufacturer's storage and handling recommendations contained within this SDS.                  For major quantities:                  Consider storage in banded areas - ensure storage areas are isolated from sources of community water (including stormwater, ground water, lakes and streams).                  Ensure that accidental discharge to air or water is the subject of a contingency disaster management plan; this may require consultation with local authorities.</p>
<b>Storage incompatibility:</b>	<p>Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.                  Avoid reaction with oxidising agents                  Avoid storage with reducing agents.</p>

**Section 8: EXPOSURE CONTROL / PERSONAL PROTECTION**

**WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

Substance	TWA		STEL	
	ppm	mg / m <sup>3</sup>	ppm	mg / m <sup>3</sup>
Calcium fluoride:	-	2.5	-	-
Sodium borate, pentahydrate Anhydrous & Pentahydrate:	-	3	-	-
Borates, tetra, sodium salts Decahydrate:	-	5	-	-

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2019 11TH EDITION.

<b>Engineering Controls:</b>	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. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.
<b>Personal Protection Equipment:</b>	
	
<b>Eyes:</b>	Wear safety goggles with side shield. Eye wash facilities should be available.
<b>Skin / Hands:</b>	Wear protective gloves and overalls.
<b>Respiratory:</b>	If dust is present wear a dust mask and goggles.
<b>General:</b>	Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing daily after work.

## Section 9: PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance:</b>	Solid
<b>Colour:</b>	Green prills
<b>Odour:</b>	Odourless
<b>Odour Threshold:</b>	Not Available
<b>pH:</b>	4.5 (10%)
<b>Boiling Point:</b>	Not Available
<b>Melting Point:</b>	160°C
<b>Flash Point:</b>	Not Available
<b>Flammability:</b>	Not Available
<b>Upper and Lower Explosive Limits:</b>	Not Available
<b>Vapour Pressure:</b>	Not Available
<b>Vapour Density:</b>	Not Available
<b>Water Solubility:</b>	Miscible
<b>Partition Coefficient:</b>	Not Available
<b>Auto-Ignition Temperature:</b>	Not Available
<b>Decomposition Temperature</b>	Not Available
<b>Kinematic Viscosity</b>	Not Available

## Section 10: STABILITY & REACTIVITY

<b>Stability of Substance:</b>	This product is stable under normal conditions.
<b>Possibility of Hazardous Reactions:</b>	See section 7
<b>Conditions to Avoid:</b>	See section 7
<b>Incompatible Materials:</b>	See section 7
<b>Hazardous Decomposition Products:</b>	See section 5

## Section 11: TOXICOLOGICAL INFORMATION

<b>Hazard Classifications:</b>	6.1D (oral), 6.3B, 6.4A, 6.8A, 6.9B, 9.1D, 9.3C
<b>Ingestion:</b>	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.
<b>Inhalation:</b>	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
<b>Skin:</b>	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition. 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.
<b>Eye:</b>	If applied to the eyes, this material causes severe eye damage.
<b>Chronic:</b>	There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Crystalline silicas activate the inflammatory response of white blood cells after they injure the lung epithelium. Chronic exposure to crystalline silicas reduces lung capacity and predisposes to chest infections. Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.
<b>Toxicological Data:</b>	Not available

## Section 12: ECOLOGICAL INFORMATION

<b>Hazard Classifications:</b>	Not assigned
<b>Ecotoxicity:</b>	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. <b>DO NOT</b> discharge into sewer or waterways.

<b>Product:</b>	<b>Persistence and Degradability:</b>	<b>Bioaccumulation:</b>	<b>Mobility in Soil:</b>
Potassium Nitrate	LOW	LOW (LogKOW = 0.209)	LOW (KOC = 14.3)
Ammonium Sulfate	HIGH	LOW (LogKOW = -2.2002)	LOW (KOC = 6.124)
Ammonium Phosphate, Monobasic	HIGH	LOW (LogKOW = -0.7699)	HIGH (KOC = 1)

## Section 13: DISPOSAL INFORMATION

<b>Disposal Method:</b>	Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017 Disposal
<b>Container Disposal:</b>	<b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill.
<b>Precautions or Methods to Avoid:</b>	The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous. DO NOT deposit the hazardous substance into or onto a landfill or a sewage facility. "Detonation, deflagration or controlled combustion of the hazardous substance must happen under controlled conditions with no person or place exposed to 1. a blast overpressure of more than 9 kPa; or 2. an unsafe level of heat radiation." The disposed hazardous substance must not come into contact with class 1, 2, 3 or 4 substances. Remove any ignition source from the disposal site.

## Section 14: TRANSPORT INFORMATION

### Labels Required:

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (UN): 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

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number:	HSR002571
Group Standard	Fertilisers (Subsidiary Hazard) Group Standard 2017

### Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
Not Applicable	Not Applicable	Not Applicable

### Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

### Tracking Requirements

Not Applicable.

## Section 16: OTHER INFORMATION

### 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

This Safety Data Sheet was updated on the date shown and supersedes all previous versions.

### Disclaimer

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Please contact Morton Smith - Dawe, if further information is required.

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