

Date of issue/ Date of revision : 12.04.2023  
Date of previous issue : 23.11.2020  
Version : 8.0



# SAFETY DATA SHEET

YaraVita FOLIAR POTASH

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product name : YaraVita FOLIAR POTASH  
Product code : PYP06M  
Product type : Liquid

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

Identified uses
Industrial distribution. Industrial USE to formulate chemical product mixtures. Professional formulation of fertiliser products. Professional USE as fertiliser in Greenhouse. Professional USE as liquid fertiliser in open field. Professional USE as fertiliser - maintenance of equipment.

Uses advised against	: Other non-specified industry
Reason	: Due to lack of related experience or data, the supplier cannot approve this use.

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

Address : Yara UK Limited  
Street : Pocklington Industrial Estate  
Pocklington  
Postal code : YO42 1DN  
City : York  
Country : United Kingdom  
Telephone number : +44 1759 302545  
Fax no. : +44 1759 303650  
e-mail address of person responsible for this SDS : yarauk.hesq@yara.com

### 1.4 Emergency telephone number

National advisory body/Poison : Not available.

**Center****Supplier**

**Emergency telephone number** : National Chemical Emergency Centre  
**(with hours of operation)** : +44 (0) 1865 407333 (24h)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture.

**Product definition** : Mixture

### Classification according to UK CLP/GHS

**Classification** : Met. Corr. 1, H290  
 Skin Corr. 1, H314  
 Eye Dam. 1, H318  
 Repr. 1B, H360FD  
 STOT SE 3, H335 (Respiratory tract irritation)

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** :

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H360FD	May damage fertility. May damage the unborn child.

### **Precautionary statements**

<b>Prevention</b>	:	P280	Wear protective gloves and eye/face protection.
	:	P202	Do not handle until all safety precautions have been read and understood.
<b>Response</b>	:	P260	Do not breathe gas or vapour.
	:	P305	IF IN EYES:
	:	P351	Rinse cautiously with water for several minutes.
	:	P338	Remove contact lenses, if present and easy to do. Continue rinsing.
	:	P303	IF ON SKIN (or hair):
<b>Storage</b>	:	P361	Take off immediately all contaminated clothing.
	:	P353	Rinse skin with water.
	:	P234	Keep only in original packaging.

**Hazardous ingredients** : potassium carbonate  
tetrapotassium pyrophosphate  
tetrasodium ethylene diamine tetraacetate  
boric acid

**EU Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Applicable, Table 3.  
Restricted to professional users.

### **Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** : Not applicable.  
**Tactile warning of danger** : Not applicable.

### **2.3 Other hazards**

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** : None known.  
**Additional information** : None.

## **SECTION 3: Composition/information on ingredients**

**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
potassium carbonate	REACH #: 01-2119532646-36 EC : 209-529-3 CAS : 584-08-7	>= 35 - <= 45	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 (Respiratory tract irritation)	[1]
tetrapotassium pyrophosphate	REACH #: 01-2119489369-18 EC : 230-785-7 CAS : 7320-34-5	>= 10 - <= 15	Eye Irrit. 2, H319	[1]
tetrasodium ethylene diamine tetraacetate	REACH #: 01-2119486762-27 EC : 200-573-9 CAS : 64-02-8 Index : 607-428-00-2	>= 1 - <= 2	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Dam. 1, H318 STOT RE 2, H373 (respiratory tract) (inhalation)	[1]
boric acid	REACH #: 01-2119486683-25 EC : 233-139-2	>= 0.3 - <= 1	Repr. 1B, H360FD	[1]

CAS : 10043-35-3 Index : 005-007-00-2			
--	--	--	--

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

#### Type

[1] Substance classified with a physical, health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

**Remarks** : This product contains Boron (see section 7 and 11).

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Check for and remove any contact lenses. Get medical attention immediately. Chemical burns must be treated promptly by a physician.
- Inhalation** : Avoid inhalation of vapor, spray or mist. If inhaled, remove to fresh air. Get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If breathing is difficult, give oxygen.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Chemical burns must be treated promptly by a physician.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Get medical attention if you feel unwell.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following: pain, watering, redness
- Inhalation** : Adverse symptoms may include the following: respiratory tract irritation, coughing
- Skin contact** : Adverse symptoms may include the following: pain or irritation, blistering may occur
- Ingestion** : May cause burns to mouth, throat and stomach.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None identified.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : Avoid breathing dusts, vapors or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed.

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## SECTION 6: Accidental release measures

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

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

Not for human or animal consumption.

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not handle until all safety precautions have been read and understood. As a precaution, keep exposure as low as possible for pregnant women, children and workers in reproductive age. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container. Spillages should be cleaned up promptly to avoid damage to surrounding materials.
- Advice on general occupational hygiene** : 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 eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in a corrosion resistant container with a resistant inner liner. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Bund storage facilities to prevent soil and water pollution in the event of spillage.

**7.3 Specific end use(s)****Recommendations**

: Do not generate and inhale liquid fertilizer aerosols.

In addition to overalls, gloves and eye protection, use of efficient respiratory protection (P2/P3 respirators with a tight face seal) during discharge of fertilizer bags and maintenance of equipment is recommended to minimize inhalation exposure and to ensure safe-use during this activity (see section 8).

Risk assessments show safe use during normal spreading of fertilizers containing below 5% of boron by tractor (liquid or granular) and backpack (liquid).

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**8.1 Control parameters****Occupational exposure limits****Remark**

: No exposure limit value known.

**Recommended monitoring procedures**

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

Product/ingredient name	Type	Exposure	Value	Population	Effects
potassium carbonate	DNEL	Long term Inhalation	10 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Dermal	16 mg/cm <sup>2</sup>	Workers	Local
tetrasodium ethylene diamine tetraacetate	DNEL	Long term Inhalation	1.5 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	3 mg/m <sup>3</sup>	Workers	Local

boric acid	DNEL	Long term Inhalation	8.3 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	392 mg/kg bw/day	Workers	Systemic

**PNECs**

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
tetrasodium ethylene diamine tetraacetate	PNEC	Fresh water	2.2 mg/l	Assessment Factors
	PNEC	Intermittent release	1.2 mg/l	Assessment Factors
	PNEC	Marine water	0.22 mg/l	Assessment Factors
	PNEC	Sewage Treatment Plant	43 mg/l	Assessment Factors

**8.2 Exposure controls**

**Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures**

**Hygiene measures** : A washing facility or water for eye and skin cleaning purposes should be present. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.  
**Recommended:** Tightly-fitting goggles, Europe:, CEN: EN166,

**Skin protection**




**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. For general applications, we recommend gloves with a thickness typically greater than 0.35 mm. It should be emphasized that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being



performed and the risks involved and should be approved by a specialist before handling this product.

- Respiratory protection** : Use respiratory protection with more than 94% efficiency (P2, P3 or N95) and a tight face seal, when risk of exposure to dust.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Personal protective equipment (Pictograms)** :   

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid
- Color** : Yellow.,
- Odor** : Odorless.
- Melting point/freezing point** : < -5 °C
- Initial boiling point and boiling range** : > 100 °C
- Flammability** : Non-flammable.
- Upper/lower flammability or explosive limits** : **Lower:** Not applicable.  
**Upper:** Not applicable.
- Flash point** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not applicable.
- pH** : 13.5
- Viscosity** : **Dynamic:** < 100 mPa.s  
**Kinematic:** > 21 mm<sup>2</sup>/s
- Miscibility with water** : Miscible in water.
- Partition coefficient: n-octanol/water** : Not applicable.
- Vapor pressure** : < 23 hPa
- Density** : 1.555 g/cm<sup>3</sup>
- Relative vapour density** : < 1 [Air = 1]
- Explosive properties** : Non-explosive.

**Oxidizing properties** : Non-oxidizer.  
No oxidizing ingredients present.

#### Particle characteristics

**Median particle size** : Not applicable.

#### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : May be corrosive to metals. Expert judgment

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : Avoid contamination by any source including metals, dust and organic materials.

**10.5 Incompatible materials** : Reactive or incompatible with the following materials:  
acids, metals

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Method	Species	Result	Exposure
potassium carbonate				
	LD50 Oral	Rat	> 2,000 mg/kg	Not applicable.
tetrapotassium pyrophosphate				
	LD50 Dermal	Rabbit	> 4,640 mg/kg	Not applicable.
tetrasodium ethylene diamine tetraacetate				
	OECD 401 LD50 Oral	Rat	1,780 mg/kg	Not applicable.
boric acid				
	LD50 Oral	Rat	3,450 mg/kg	Not applicable.
	LD50 Dermal	Rabbit	> 5,000 mg/kg	Not applicable.

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)

YaraVita FOLIAR POTASH	157,271.6 mg/kg	N/A	N/A	N/A	132.5 mg/l
tetrasodium ethylene diamine tetraacetate	1,780 mg/kg	N/A	N/A	N/A	1.5 mg/l
boric acid	3,450 mg/kg	N/A	N/A	N/A	N/A

**Irritation/Corrosion**

Product/ingredient name	Method	Species	Result	Exposure
tetrasodium ethylene diamine tetraacetate				
	OECD 405 Eyes	Rabbit	Damage	

**Conclusion/Summary**

**Skin** : Corrosive to the skin.  
**Eyes** : Causes serious eye damage.  
**Respiratory** : May cause respiratory irritation.

**Sensitization****Conclusion/Summary**

**Skin** : No known significant effects or critical hazards.  
**Respiratory** : No known significant effects or critical hazards.

**Mutagenicity**

**Conclusion/Summary** : No known significant effects or critical hazards.

**Carcinogenicity**

**Conclusion/Summary** : No known significant effects or critical hazards.

**Reproductive toxicity**

Product/ingredient name	Method	Species	Result	Exposure
boric acid				
	Oral	Rat	Fertility effects- Positive NOEL	3 weeks Repeated dose;

**Conclusion/Summary** : May damage fertility or the unborn child.

**Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
potassium carbonate	Category 3	-	Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
tetrasodium ethylene diamine tetraacetate	Category 2	inhalation	respiratory tract

**Information on the likely routes of exposure** : Inhalation

**Potential acute health effects**

- Inhalation** : May cause respiratory irritation. Vapor may be irritating to eyes and respiratory system.
- Ingestion** : May cause burns to mouth, throat and stomach.
- Skin contact** : Causes severe burns.
- Eye contact** : Causes serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Inhalation** : Adverse symptoms may include the following: respiratory tract irritation, coughing
- Ingestion** : May cause burns to mouth, throat and stomach.
- Skin contact** : Adverse symptoms may include the following: pain or irritation, blistering may occur
- Eye contact** : Adverse symptoms may include the following: pain, watering, redness

**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure**

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

**Long term exposure**

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

**Potential chronic health effects**

Product/ingredient name	Method	Species	Result	Exposure
tetrasodium ethylene diamine tetraacetate				
	OECD 413 Sub-chronic NOAEL Inhalation	Rat	3 mg/m <sup>3</sup> Continuous	65 days 6 hours per day Repeated dose

- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : May damage fertility or the unborn child.
- Other effects** : No known significant effects or critical hazards.

**Toxicokinetics**

- Distribution** : Not available.

Other information : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Method	Species	Result	Exposure
potassium carbonate				
	Acute LC50 Fresh water	Fish	68 mg/l	96 h
	Acute EC50	Daphnia	200 mg/l	48 h
tetrapotassium pyrophosphate				
	Acute LC50 Fresh water	Fish	> 100 mg/l	96 h
	Acute EC50 Fresh water	Daphnia	> 100 mg/l	48 h
	Acute EC50 Fresh water	Algae	> 100 mg/l	72 h
tetrasodium ethylene diamine tetraacetate				
	Acute LC50 Fresh water	Fish	> 1,000 mg/l	96 h
boric acid				
	Acute LC50 Fresh water	Fish	> 100 mg/l	96 h
	Acute EC50 Fresh water	Daphnia	> 100 mg/l	48 h

**Conclusion/Summary** : No known significant effects or critical hazards.

### 12.2 Persistence and degradability

**Conclusion/Summary** : No known significant effects or critical hazards.

### 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
tetrasodium ethylene diamine tetraacetate	5.01	1.80	low
boric acid	0.175-1.09	Not applicable.	low

**Conclusion/Summary** : No known significant effects or critical hazards.

### 12.4 Mobility in soil

**Soil/water partition coefficient (KOC)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : Yes.

#### Waste catalogue





Waste code	Waste designation
06 02 05*	other bases

#### Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way.  
Care should be taken when handling emptied containers that have not been cleaned or rinsed out.  
Empty containers or liners may retain some product residues.  
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	3266	3266	3266	3266
<b>14.2 UN proper shipping name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (tetrapotassium pyrophosphate, potassium carbonate, )	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (tetrapotassium pyrophosphate, potassium carbonate, )	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (tetrapotassium pyrophosphate, potassium carbonate, )	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (tetrapotassium pyrophosphate, potassium carbonate, )
<b>14.3 Transport hazard class(es)</b>	8	8	8	8

				
<b>14.4 Packing group</b>	II	II	II	II
<b>14.5. Environmental hazards</b>	No.	Yes.	No.	No.

**Additional information**

ADR/RID

: Hazard identification number 80  
Tunnel code (E)

ADN

: Danger code N3

IMDG

: IMDG Code Segregation group SG18  
Emergency schedules (EmS) F-A, S-B

Remark

: Remarks re ADN:

The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

**14.6 Special precautions for user**

: Transport within user's premises: Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments****Proper shipping name** : Not listed.**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****UK (GB) /REACH****Annex XIV - List of substances subject to authorization****Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

None of the components are listed.

**Prior Informed Consent (PIC)**

None of the components are listed.

**Persistent Organic Pollutants**

None of the components are listed.

**EU Regulation (EC) No.**

: Applicable, Table 3.

**1907/2006 (REACH) Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

Restricted to professional users.

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**National regulations**

**Biocidal products regulation** : Not applicable.

**EU regulations**

**Notes** : To our knowledge no other country or state specific regulations are applicable.

**15.2 Chemical Safety Assessment** : Complete.

## SECTION 16: Other information

**Abbreviations and acronyms** :

- ATE = Acute Toxicity Estimate
- GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
- DNEL = Derived No Effect Level
- DMEL = Derived Minimal Effect Level
- EUH statement = GB CLP-specific Hazard statement
- N/A = Not available
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- PBT = Persistent, Bioaccumulative and Toxic
- vPvB = Very Persistent and Very Bioaccumulative
- bw = Body weight

**Key data sources** :

- EU REACH ECHA/IUCLID5 CSR.
- National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda Registry of Toxic Effects of Chemical Substances.
- Sphera Solutions Inc., 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada.

**Procedure used to derive the classification**

Classification	Justification
Met. Corr. 1, H290	Expert judgment
Skin Corr. 1, H314	On basis of test data
Eye Dam. 1, H318	On basis of test data



Repr. 1B, H360FD	Calculation method
STOT SE 3, H335 (Respiratory tract irritation)	Calculation method

**Full text of abbreviated H statements**

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

**Full text of classifications**

Acute Tox. 4	ACUTE TOXICITY - Category 4
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Met. Corr. 1	CORROSIVE TO METALS - Category 1
Repr. 1B	TOXIC TO REPRODUCTION - Category 1B
Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

**Revision comments** : The safety data sheet has been revised according to UK REACH Regulation SI 2019/758.

**Date of printing** : 15.09.2023  
**Date of issue/ Date of revision** : 12.04.2023  
**Date of previous issue** : 23.11.2020  
**Version** : 8.0  
**Prepared by** : Product Stewardship and Compliance (PSC).

|| Indicates information that has changed from previously issued version.

**Notice to reader**

To the best of our knowledge, the information provided in this Safety Data Sheet is accurate as at the date of its issue. The information it contains is being given for safety guidance purposes and relates only to the specific material and uses described in it. This information does not necessarily apply to that material when combined with other material(s) or when used otherwise than as described herein, since all materials may represent unknown hazards and should be used with caution. Final determination of the suitability of any material is the sole responsibility of the user.



**Annex to the extended Safety Data Sheet (eSDS) -  
Exposure Scenario/Safe Use Information:**

**Identification of the substance or mixture**

**Product definition** : Mixture

**Product name** : YaraVita FOLIAR POTASH

**Exposure Scenario/Safe Use Information** : Exposure Scenarios are not attached for corrosive or irritant hazards, relevant information on safe use is included in section 8. For each additional hazard resulting in classification relevant Exposure Scenarios are attached. Boron compounds: Exposure Scenarios for fertilizer use are not attached. Relevant information on safe use is included in section 7 and 8.



## **Annex to the extended Safety Data Sheet (eSDS) - Exposure Scenario:**

### **Section 1 — Title**

**Short title of the exposure scenario** : Yara - potassium carbonate - Fertilizer.

**Identified use name** : Professional formulation of fertiliser products.  
Professional USE as fertiliser in Greenhouse.  
Professional USE as liquid fertiliser in open field.  
Professional USE as fertiliser - maintenance of equipment.

**Substance supplied to that use in form of** : In a mixture

### **List of use descriptors**

**Process Category** : PROC05, PROC08a, PROC08b, PROC09, PROC11, PROC15  
**Environmental Release Category** : ERC08b, ERC08e  
**Market sector by type of chemical product** : PC12  
**Sector of end use** : SU22  
**Subsequent service life relevant for that use** : No.

**Number of the ES** : 00000000609615122016

### **Section 2 — Exposure controls**

**Contributing scenario controlling environmental exposure for:** Widespread use of reactive processing aid (no inclusion into or onto article, indoor), Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)

As no environmental hazard was identified, no environmental-related exposure assessment and risk

characterization was performed.

<b>Conditions and measures related to external treatment of waste for disposal</b>	:	Neutralisation is normally necessary before waste water is discharged into water treatment plants.
<b>Suitable waste treatment</b>	:	pH adjustment

#### Contributing scenario controlling worker exposure for:

<b>Concentration of substance in mixture or article</b>	:	< 40 %
<b>Physical state</b>	:	Liquid
<b>Amounts used</b>	:	Varies between millilitres (sampling) and cubic metres (material transfers).
<b>Frequency and duration of use</b>	:	8 hours per day 220 days per year
<b>Engineering controls</b>	:	Additional good practice advice beyond the REACH CSA, Automate activity where possible., Handle substance within a closed system., Use long-handled tools.
<b>Ventilation control measures</b>	:	Provide a good standard of general ventilation., None required. However, use of adequate ventilation is good industrial practice.
<b>Organizational measures to prevent/limit releases, dispersion and exposure</b>	:	Ensure operatives are trained to minimise exposures., Supervision in place to check that the risk management measures in place are being used correctly and operational conditions followed.

#### Conditions and measures related to personal protection and hygiene

<b>Advice on general occupational hygiene</b>	:	Avoid splashing.
<b>Personal protection</b>	:	See Section 8 of the safety data sheet (personal protective equipment)., Wear protective gloves/clothing and eye/face protection., Goggles, face shield or other full-face protection should be worn if there is a risk of direct exposure to aerosols or

splashes or when material is handled hot., Wear apron or coverall if there is a risk of exposure to splashes., Wear rubber boots., Use chemical-resistant, impervious gloves., butyl rubber, fluor rubber, nitrile, PVC

**Respiratory protection** : The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract., Respiratory protection is not necessary if room is well ventilated., Avoid breathing vapors, spray or mists., Wear a respirator conforming to EN140 with type A/P2 filter or better.

### Section 3 — Exposure estimation and reference to its source

#### Exposure estimation and reference to its source - Workers:

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : See Section 8 in SDS, DNEL.  
Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Contributing scenario	General	Conc.	Duration	Protection efficiency (%)			RCR inhal.	RCR Dermal	Remark
				LEV	Respiratory	Dermal			
PROC05, PROC08a, PROC08b, PROC09, PROC15	Liquid	< 40 %	< 8 h	0	0		0.058		[1]
PROC11	Liquid	< 1%	< 8 h		90		0.58		[2]

[1] Worst case assessment

[2] Worst case assumption Backpack spraying

### Section 4 — Guidance to DU to evaluate whether he works inside the boundaries set by the ES

<b>Environment</b>	: Not applicable.
<b>Health</b>	: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures., Scaling tool, scalable parameters and RCR is given in section 3., RCR should not be exceeded.

### Abbreviations and acronyms

<b>Process Category</b>	: PROC05 - Mixing or blending in batch processes PROC08a - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC08b - Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC09 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC11 - Non industrial spraying PROC15 - Use as laboratory reagent
<b>Environmental Release Category</b>	: ERC08b - Widespread use of reactive processing aid (no inclusion into or onto article, indoor) ERC08e - Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
<b>Market sector by type of chemical product</b>	: PC12 - Fertilizers
<b>Sector of end use</b>	: SU22 - Professional uses



### **Annex to the extended Safety Data Sheet (eSDS) - Exposure Scenario:**

#### **Section 1 — Title**

**Short title of the exposure scenario** : Yara - potassium carbonate - Formulation

**Identified use name** : Industrial distribution.  
Industrial USE to formulate fertilisers product mixtures.  
Industrial USE to formulate chemical product mixtures.

**Substance supplied to that use in form of** : In a mixture

#### List of use descriptors

**Process Category** : PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC15

**Environmental Release Category** : ERC02

**Market sector by type of chemical product** : PC12

**Sector of end use** : SU03

**Subsequent service life relevant for that use** : No.

**Number of the ES** : 00000000579623092016

## Section 2 — Exposure controls

### Contributing scenario controlling environmental exposure for: Formulation into mixture

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterization was performed.

**Conditions and measures related to external treatment of waste for disposal** : Neutralisation is normally necessary before waste water is discharged into water treatment plants.

**Suitable waste treatment** : pH adjustment

### Contributing scenario controlling worker exposure for:

**Concentration of substance in mixture or article** : < 40 %

**Physical state** : Liquid

<b>Amounts used</b>	: Varies between millilitres (sampling) and cubic metres (material transfers).
<b>Frequency and duration of use</b>	: 8 hours per day 220 days per year
<b>Engineering controls</b>	: Additional good practice advice beyond the REACH CSA, Automate activity where possible., Handle substance within a closed system., Use long-handled tools.
<b>Ventilation control measures</b>	: None required. However, use of adequate ventilation is good industrial practice., Provide a good standard of general ventilation.
<b>Organizational measures to prevent/limit releases, dispersion and exposure</b>	: Ensure operatives are trained to minimise exposures., Supervision in place to check that the risk management measures in place are being used correctly and operational conditions followed.
<b>Conditions and measures related to personal protection and hygiene</b>	
<b>Advice on general occupational hygiene</b>	: Avoid splashing.
<b>Personal protection</b>	: See Section 8 of the safety data sheet (personal protective equipment)., Wear protective gloves/clothing and eye/face protection., Goggles, face shield or other full-face protection should be worn if there is a risk of direct exposure to aerosols or splashes or when material is handled hot., Wear apron or coverall if there is a risk of exposure to splashes., Wear rubber boots., Use chemical-resistant, impervious gloves., butyl rubber, fluor rubber, nitrile, PVC
<b>Respiratory protection</b>	: The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract., Respiratory protection is not necessary if room is well ventilated., Avoid breathing vapors, spray or mists., Wear a respirator conforming to EN140 with type A/P2 filter or better.

### Section 3 — Exposure estimation and reference to its source



**Exposure estimation and reference to its source - Workers:**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : See Section 8 in SDS, DNEL.  
Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Contributing scenario	General	Conc.	Duration	Protection efficiency (%)			RCR inhal.	RCR Dermal	Remark
				LEV	Respiratory	Dermal			
PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC15	Indoor, Liquid		8 h	0	0		0.058		[1]

[1] Worst case assessment

#### Section 4 — Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment** : Not applicable.

**Health** : Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures., Scaling tool, scalable parameters and RCR is given in section 3., RCR should not be exceeded.

#### Abbreviations and acronyms

**Process Category** : PROC02 - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions  
PROC03 - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or

processes with equivalent containment condition  
 PROC04 - Chemical production where opportunity for exposure arises  
 PROC05 - Mixing or blending in batch processes  
 PROC08a - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities  
 PROC08b - Transfer of substance or mixture (charging and discharging) at dedicated facilities  
 PROC09 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing)  
 PROC15 - Use as laboratory reagent

**Environmental Release Category** : ERC02 - Formulation into mixture

**Market sector by type of chemical product** : PC12 - Fertilizers

**Sector of end use** : SU03 - Industrial uses



## **Annex to the extended Safety Data Sheet (eSDS) - Exposure Scenario:**

### **Section 1 — Title**

**Short title of the exposure scenario** : Yara - boric acid - Distribution, Formulation

**Identified use name** : Industrial distribution.  
 Industrial USE to formulate chemical product mixtures.  
 Industrial USE to formulate fertilisers product mixtures.

**Substance supplied to that use in form of** : In a mixture

### **List of use descriptors**

**Process Category** : PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC14, PROC15, PROC28

**Market sector by type of chemical product** : PC12

**Sector of end use** : SU03

**Subsequent service life relevant for that use** : No.

**Number of the ES** : 05098-1/2016-03-08

## Section 2 — Exposure controls

### Contributing scenario controlling environmental exposure for: All

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterization was performed.

### Contributing scenario controlling worker exposure for:

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Physical state** : Solid  
Granulate  
Powder.

**Dust** : Solid, high dustiness

**Frequency and duration of use** : Unless otherwise stated.  
Use duration (h/d): < 8

**Area of use:** : Indoor, Outdoor

**Technical conditions and measures to control dispersion from source towards the worker** : Automate activity where possible., Provide dust filtration for air displaced from the silo during filling.

**Ventilation control measures** : Contributing scenario: **PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC14**

Provide extract ventilation to points where emissions occur.

Contributing scenario: **PROC15**  
Handle in a fume cupboard or under extract ventilation.

**Organizational measures to prevent/limit releases, dispersion and exposure** : Ensure operatives are trained to minimise exposures., Ensure regular inspection, cleaning and maintenance of equipment and machines.

#### Conditions and measures related to personal protection and hygiene

**Personal protection** : Wear protective gloves/clothing and eye/face protection. See Section 8 of the safety data sheet (personal protective equipment).

**Respiratory protection** : In case of inadequate ventilation wear respiratory protection., Filter P2, or, Filter P3

### Section 3 — Exposure estimation and reference to its source

#### Exposure estimation and reference to its source - Workers:

**Exposure assessment (human):** : Workplace measurements  
Advanced REACH tool (ART).  
MEASE

**Exposure estimation and reference to its source** : See Section 8 in SDS, DNEL.  
  
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Contributing scenario	General	Conc.	Duration	Protection efficiency (%)			RCR inhal.	RCR Dermal	Remark
				LEV	Respiratory	Dermal			
PROC02	Indoor	100 %	< 8 h		0		0.06		[1]
PROC02	Indoor	> 25 %	< 1 h			0		< 0,001	[2]
PROC03	Indoor	100 %	< 8 h		0		0.06		[1]
PROC04	Indoor	100 %	< 1 h		0		0.54		[1]
PROC04	Indoor	> 25 %	< 1 h			0		0,0001	[2], [5]

PROC04	Indoor	100 %	< 1 h		90		0.14		[1], [6]
PROC04	Indoor	> 25 %	< 1 h			0		0,001	[2], [6]
PROC05	Indoor	100 %	< 1 h		0		0.54		[1], [4]
PROC05	Indoor	> 25 %	< 1 h			0		< 0,001	[2], [5]
PROC05	Indoor	100 %	< 1 h		90		0.14		[1], [6]
PROC05	Indoor	100 %	< 1 h			0		< 0,001	[2], [6]
PROC08a, PROC28	Indoor, Outdoor	100 %	< 8 h		0		0.92		[1], [7], [8]
PROC08a, PROC28	Indoor	1-25 %	< 4 h			0		< 0,001	[2], [7], [8]
PROC08b	Indoor	100 %	60 min		90		0.14		[1], [6]
PROC08b	Indoor, Outdoor	100 %	< 8 h		0		0.92		[1], [7]
PROC08b	Outdoor	100 %	< 120 min		0		0.011		[1]
PROC08b	Outdoor	100 %	< 120 min		0		0.021		[3]
PROC08b	Indoor	> 25 %	60 min			0		< 0,001	[2], [6]
PROC08b	Outdoor	> 25 %	< 15 min			0		< 0,001	[2]
PROC09	Indoor	1-40 %	< 8 h		0		0.28		[1]
PROC09	Indoor	5-25 %	> 4 h			0		< 0,001	[2]
PROC14	Indoor	100 %	< 8 h		0		0.9		[1]
PROC14	Indoor	100 %	< 8 h	90	0		0.1		[3]
PROC14	Indoor	> 25 %	< 8 h			0		< 0,001	[2]
PROC15	Indoor	100 %	< 8 h		0		0.11		[1]
PROC15	Indoor	5-25 %	< 1 h			0		< 0,001	[2]

[1] Workplace measurements

[2] MEASE

[3] Advanced REACH tool (ART).

[4] Small scale < 50 kg

[5] Small scale All non-skin contact or incidental skin contact

[6] Large scale

[7] Equipment cleaning and maintenance

[8] PROC 28 is considered covered by PROC 8a

## Section 4 — Guidance to DU to evaluate whether he works inside the boundaries set by the ES

<b>Environment</b>	: Not applicable.
<b>Health</b>	: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Scaling tool, scalable parameters and RCR is given in section 3. Scalable parameters: Duration, protection efficiency, Conc. RCR should not be exceeded.

### Abbreviations and acronyms

<b>Process Category</b>	: PROC02 - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC03 - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC04 - Chemical production where opportunity for exposure arises PROC05 - Mixing or blending in batch processes PROC08a - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC08b - Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC09 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC14 - Tableting, compression, extrusion, pelletization, granulation PROC15 - Use as laboratory reagent PROC28 - Manual maintenance (cleaning and repair) of machinery
<b>Market sector by type of chemical product</b>	: PC12 - Fertilizers
<b>Sector of end use</b>	: SU03 - Industrial uses