Conforms: GHS (rev 7) (2017). NCh2245:2015 - Chile

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SAFETY DATA SHEET

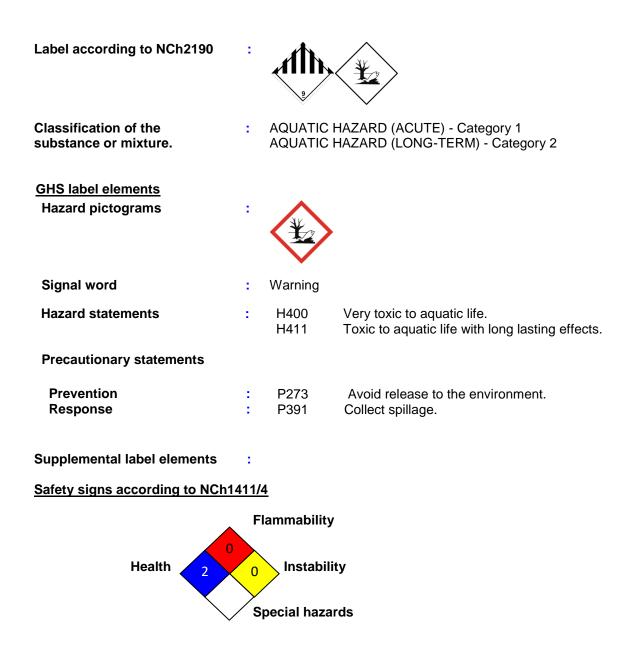
YaraVita SEEDLIFT

Section 1. Identification		
Product identifier Product type Product code	:	YaraVita SEEDLIFT Liquid (Suspension) PYPDGL
<u>Uses</u> Area of application Material uses	:	Professional applications Fertilizers.
<u>Supplier</u> Supplier's details	:	YARA CHILE
Address Street City Country	:	A. Pedro de Valdivia #1215, office 309 Providencia Providencia, Santiago Chile
Telephone number Fax no. e-mail address of person responsible for this SDS Emergency telephone number		56 2 2232 57 12 56 2 2234 14 34 yarachile@yara.com +56 2 2582 93 36 (NCEC) (7/24)
<u>Section 1. National advisory bod</u> Name Telephone number	<u>ly/Po</u> : :	<mark>bison Center</mark> RITA Chile +56 2 2777 19 94 (RITA)

Section 2. Hazard identification

Classification according to	:	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
NCh382		LIQUID, N.O.S., (zinc compounds, trizinc
		bis(orthophosphate)), 9, III

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Other hazards which do not	1	None known.
result in classification		
Additional information	10	None.

Section 3. Composition/information on ingredients

Substance/mixture : Mixtu	re	
Ingredient name	CAS number	%
zinc oxide	1314-13-2	>= 10 - <= 13,4
trizinc bis(orthophosphate)	7779-90-0	>= 10 - <= 11,5
pyridine-2-thiol 1-oxide, sodium salt	3811-73-2	>= 0,001 - < 0,01

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Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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 and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	:	Rinse with plenty of running water. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	:	Avoid inhalation of vapor, spray or mist. If inhaled, remove to fresh air.
Skin contact	:	Wash with soap and water. Get medical attention if irritation develops.
Ingestion	:	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink.
Most important symptoms/effect	ts, ac	cute and delayed
Potential acute health effects		
Eye contact		No known significant effects or critical hazards.
Inhalation	:	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	1	No known significant effects or critical hazards.
Ingestion	1	No known significant effects or critical hazards.
Over-exposure signs/symptom	IS	
Eye contact	:	No specific data.
Inhalation	10	No specific data.
Skin contact	10	No specific data.
Ingestion	10	No specific data.
Indication of immediate medical attention and special treatment needed, if necessary		
Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	1	No specific treatment.
Protection of first-aiders	-	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire. None identified.
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Specific hazards arising from the chemical	:	In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: nitrogen oxides, phosphorus oxides, metal oxide/oxides, ammonia, Avoid breathing dusts, vapors or fumes from burning materials., In case of inhalation of decomposition products in a fire, symptoms may be delayed.
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.
Remark	:	Non-explosive.

Section 6. Accidental release measures

Personal precautions, protective	equ	ipment 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. Avoid breathing 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".
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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
Methods and materials for contain	nm	ent and cleaning up
Small spill Large 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. Dispose of via a licensed waste disposal contractor. Stop leak if without risk. Move containers from spill area. 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
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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.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Not for human or animal consumption.

Protective measures Advice on general occupational hygiene	:	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. 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.
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. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits	
zinc oxide	ACGIH TLV (2003-01-01).	
	TWA 2 mg/m3 Form: Respirable fraction	
	STEL 10 mg/m3 Form: Respirable fraction	
	Ministry of Health (2000-07-28).	
	STEL 10 mg/m3 Form: Fume	
	Ministry of Health (2015-04-24).	
	TWA 4,4 mg/m3 Form: Fume	
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Appropriate engineering controls Environmental exposure controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants. 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.
Individual protection measures		
Hygiene measures Eye/face protection	:	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. 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.
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	:	In case of inadequate ventilation wear respiratory protection.
Personal protective equipment (Pictograms)	:	

Section 9. Physical and chemical properties and safety characteristics

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

<u>Appearance</u>	
Physical state	: Liquid [Suspension]
Color	: Beige.,
Odor	: Slight
Odor threshold	: Not determined.

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рН	:	9,5
Melting point/freezing point	:	Not determined.
Boiling point, initial boiling point, and boiling range	:	Not applicable.
Flash point	1	Not applicable.
Evaporation rate Flammability Lower and upper explosion limit/flammability limit Vapor pressure Relative density Density		Not determined. Non-flammable. Lower: Not determined. Upper: Not determined. Not determined. Not determined. 1.742 g/cm3
Solubility	:	Miscible in water.
Partition coefficient: n- octanol/water Auto-ignition temperature Decomposition temperature	:	Not applicable. Not determined. Not determined.
Viscosity	:	Dynamic: Not determined. Kinematic: Not determined.
Explosive properties Oxidizing properties	:	Non-explosive. None
Particle characteristics		
Median particle size	:	Not applicable.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Avoid contamination by any source including metals, dust and organic materials.
Incompatible materials	:	Urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

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Information on toxicological effects

Acute toxicity

Product/ingredient	Method	Species	Result	Exposure
name				
zinc oxide				
	LD50 Oral	Rat	> 5.000 mg/kg	Not applicable.
	LC50 Inhalation	Rat	> 5,7 mg/l	4 h
	Dusts and mists		-	
	OECD 402	Rat	> 5.000 mg/kg	Not applicable.
	LD50 Dermal			
trizinc bis(orthophospha	ate)			
	LD50 Oral	Rat	> 5.000 mg/kg	Not applicable.
pyridine-2-thiol 1-oxide,	sodium salt			
	OECD 401	Rat	1.208 mg/kg	Not applicable.
	LD50 Oral			
	LC50 Inhalation	Rat	1,08 mg/l	4 h
	Dusts and mists			
	LD50 Dermal	Rabbit	720 mg/kg	Not applicable.

Conclusion/Summary

: No known significant effects or critical hazards.

Irritation/Corrosion

Product/ingredient name	Method	Species	Result	Exposure
pyridine-2-thiol 1-oxide,	sodium salt			
	Eyes	Rabbit	Irritant	
	OECD 404 Skin	Rabbit	Irritant	

Conclusion/Summary

Skin	:	No known significant effects or critical hazards.
Eyes	:	No known significant effects or critical hazards.
Respiratory	:	No known significant effects or critical hazards.
Sensitization		
Conclusion/Summary Skin Respiratory <u>Mutagenicity</u>	:	No known significant effects or critical hazards. No known significant effects or critical hazards.
Conclusion/Summary	:	No known significant effects or critical hazards.
Carcinogenicity		
Conclusion/Summary	:	No known significant effects or critical hazards.
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Reproductive toxicity		
Conclusion/Summary	:	No known significant effects or critical hazards.
Specific target organ toxicity (si		
No known significant effects or crit	tical	hazards.
Specific target organ toxicity (re No known significant effects or crit		
Aspiration hazard No known significant effects or crit	tical	hazards.
Information on the likely routes of exposure:	:	Not available.
Potential acute health effects		
Eye contact Inhalation	÷	No known significant effects or critical hazards.
Innalation		Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	÷	No known significant effects or critical hazards.
Ingestion	÷	No known significant effects or critical hazards.
		chemical and toxicological characteristics
Eye contact Inhalation	1	No specific data. No specific data.
Skin contact	1	No specific data.
Ingestion	÷	No specific data.
Delayed and immediate effects	and	also chronic effects from short and long term exposure
Short term exposure		
Potential immediate effects		Not available.
Potential delayed effects	1	Not available.
Long term exposure		
Potential immediate effects	1	Not available.
Potential delayed effects	1	Not available.
Potential chronic health effects		
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Reproductive toxicity	:	No known significant effects or critical hazards.
Effects on or via lactation	:	No known significant effects or critical hazards.
Other effects	:	No known significant effects or critical hazards.
Over-exposure signs/symptoms	<u>5</u>	
Eye contact	:	No specific data.
Inhalation Skin contact	1	No specific data. No specific data.
	1	10 Specific data.
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Ingestion

: No specific data.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
pyridine-2-thiol 1-oxide, sodium salt	1.208 mg/kg	720 mg/kg	N/A	N/A	1,08 mg/l

Section 12. Ecological information

<u>Toxicity</u>				
Product/ingredien	Method	Species	Result	Exposure
t name				
zinc oxide				
	OECD 203	Fish	0,1 - 1 mg/l	96 h
	Acute LC50			
	Fresh water			
	OECD 202	Daphnia	0,1 - 1 mg/l	48 h
	Acute EC50			
	Fresh water			
	OECD 201	Algae	0,136 mg/l	72 h
	Acute IC50			
	Fresh water			
trizinc bis(orthophosp	ohate)			
	Acute LC50	Fish	0,112 mg/l	96 h
	Fresh water			
pyridine-2-thiol 1-oxid				
	OECD 203	Fish	0,0066 mg/l	96 h
	Acute LC50			
	Fresh water			
	Acute EC50	Daphnia	0,022 mg/l	48 h
	Fresh water			
	Acute EC50	Algae	0,46 mg/l	96 h
	Fresh water			

Conclusion/Summary

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Persistence and degradability

Conclusion/Summary : No known

2

No known significant effects or critical hazards.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
zinc oxide	Not applicable.	28.960,00	Not applicable.
trizinc bis(orthophosphate)	Not applicable.	60.960,00	high

Conclusion/Summary

: No known significant effects or critical hazards.

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 Mobility in soil
 Soil/water partition
 : Not available.

 Soil/water partition
 : Not available.

 coefficient (KOC)
 : Not available.

 Mobility
 : Not available.

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

Section 13. Disposal considerations

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Product Motheda of dia

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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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

Regulation: UN Class	
14.1 UN number	3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
	N.O.S. (zinc oxide, Zinc phosphate,)
14.3 Transport hazard class(es)	9
14.4 Packing group	
14.5 Environmental hazards	Yes.
Additional information Environmental hazards	: Yes.

Regulation: IMDG	
14.1 UN number	3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (zinc oxide, Zinc phosphate,)
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14.3 Transport hazard class(es)	
14.4 Packing group	
14.5 Environmental hazards	Yes.
Additional information	
Marine pollutant	: Yes.
Emergency schedules (EmS)	: F-A, S-F

Regulation: IATA	
14.1 UN number	3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
	N.O.S. (zinc oxide, Zinc phosphate,)
14.3 Transport hazard class(es)	
14.4 Packing group	
14.5 Environmental hazards	Yes.
Additional information <u>Marine pollutant</u> :	Yes.

<u>14.6 Special precautions for</u> user	:	Transport within user's premises: Ensure that persons transporting the product know what to do in the event of an accident or spillage.
IMSBC	:	Not applicable.
Transport in bulk according to IMO instruments	:	Not available.

Section 15. Regulatory information

The recipient should verify the possible existence of local regulations applicable to the chemical product.

Country information	 NCh382:2019: Dangerous goods - classification NCh2190:2003: Transport of dangerous goods – Signs for risk identification NCh1411/4:2001: Risk Prevention – Part 4: Signs for Material Hazard Identification D.S. 3557: Provisions on agricultural protection D.S. 594: Regulation on sanitary and environmental conditions in the workplace
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D.S. 298: Transport of dangerous cargo on streets and roads
D.S. 148: Health regulations on hazardous waste management
D.S. 43: Storage of dangerous substances
Exempt Res. 408/2016: Approved list of dangerous
substances to health
Exempt Res. 1035/2011: Tolerance margins for fertilizer
products that are imported, manufactured and commercialized in the country

Inventory list

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted. Australia inventory (AIIC): All components are listed or exempted. United States inventory (TSCA 8b): All components are active or exempted. EC INVENTORY (EINECS/ELINCS): All components are listed or exempted. Canada: Not determined.

Section 16. Other information

Key to abbreviations	:	ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor bw = Body weight
		GHS = Globally Harmonized System of Classification and Labelling of Chemicals
		IATA = International Air Transport Association
		IBC = Intermediate Bulk Container
		IMDG = International Maritime Dangerous Goods
		LogPow = logarithm of the octanol/water partition coefficient
		MARPOL = International Convention for the Prevention of Pollution From
		Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
		N/A = Not available
		RID = The Regulations concerning the International Carriage of Dangerous
		Goods by Rail
		SUSMP - Standard Uniform Schedule of Medicine and Poisons
		SGG = Segregation Group

UN = United Nations

Procedure used to derive the classification

Classification		Justification
AQUATIC HAZARD (ACUTE) - Category 1		Calculation method
AQUATIC HAZARD (LONG-TERM)	-	Calculation method
Category 2		
Key data sources	Nation Dept. Memo	EACH ECHA/IUCLID5 CSR. nal Institute for Occupational Safety and Health, U.S. of Health, Education, and Welfare, Reports and pranda Registry of Toxic Effects of Chemical rances.
	Sphei	ra Solutions Inc., 4777 Levy Street, St Laurent, Quebec
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HAR 2P9, Canada.

History				
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Date of next revision	:	No later than 3 years		
Indicates information that has changed from previously issued version.				

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