Based on: GHS (rev 7) (2017). Hazardous Products Regulations (HPR) - Canada

Date of issue/ Date of revision : Date of previous issue Version

04/14/2022 10/07/2020 4.0

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SAFETY DATA SHEET

YaraVita Mancozin

Section 1. Identification		
Product identifier Product type Product code		YaraVita Mancozin Liquid (Suspension) PYP72M
<u>Uses</u> Area of application Material uses <u>Supplier</u>	:	Professional applications Fertilizers.
Supplier's details	:	Yara Canada Inc.
<u>Address</u> Street Number Postal code City Country		1874 Scarth Street Ste 1800 S4P 4B3 Regina Canada
Telephone number Fax no. e-mail address of person responsible for this SDS Emergency telephone number (with hours of operation)		+1 306 525 7600 +1 306 525 2942 yna-hesq@yara.com US: Chemtrec 24-hours Emergency Response: 1-800-424- 9300 Canada: 24 Hour Emergency service, CHEMTREC 1-800- 424-9300
Section 1. National advisory boo	ly/P	oison Center
Name	:	Poisons and Drug Information Service

Name Telephone number Poisons and Drug Information Service +1 403 944 1414, (800) 332 1414 (Alberta only)

Section 2. Hazards identification

:

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Classification of the substance or mixture.	:	SPECIFIC EXPOSUR AQUATIC H	EYE DAMAGE - Category 1 TARGET ORGAN TOXICITY (REPEATED E) - Category 2 HAZARD (ACUTE) - Category 1 HAZARD (LONG-TERM) - Category 1
<u>GHS label elements</u> Hazard pictograms	:		
Signal word	:	Danger	
Hazard statements	:	H318 H373	Causes serious eye damage. May cause damage to organs through
		H400 H410	prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Precautionary statements			
Prevention	:	P280 P260	Wear protective gloves and eye protection. Do not breathe gas or vapour.
Response	:	P391 P314-a P305 P351 P338 P310	Collect spillage. Get medical attention if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or
Additional information	:	None.	doctor/physician.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	CAS number	% (w/w)
Copper oxide	1317-39-1	7 - 10
Zinc oxide (ZnO)	1314-13-2	5 - 7

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1,2-Ethanediol	107-21-1	1 - 2
2-Pyridinethiol, 1-oxide, sodium salt (1:1)	3811-73-2	0.001 - 0.01

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

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified 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	:	Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Check for and remove any
Inhalation	:	contact lenses. Get medical attention immediately. 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
Skin contact	:	appropriate mask or self-contained breathing apparatus. Wash with soap and water. Continue to rinse for at least 10 minutes. Get medical attention if irritation develops. Get
Ingestion	:	medical attention following exposure or if feeling unwell. 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 following exposure or if feeling unwell.
Most important symptoms/effects	<u>, ac</u>	ute and delayed
Potential acute health effects		
Eye contact	:	Causes serious eye damage.
Inhalation	:	Vapor may be irritating to eyes and respiratory system. 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	:	May cause burns to mouth, throat and stomach.
Over-exposure signs/symptoms		
Eye contact	:	Adverse symptoms may include the following: pain, watering, redness
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	May cause burns to mouth, throat and stomach.
Indication of immediate medical a	tter	ntion and special treatment needed, if necessary
Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
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		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 Protection of first-aiders	:	No specific treatment. 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

<u>Extinguishing media</u> Suitable extinguishing media Unsuitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire. None identified.
Specific hazards arising from the chemical Hazardous thermal	:	In a fire or if heated, a pressure increase will occur and the container may burst. This material is very 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.
decomposition products	:	Decomposition products may include the following materials: nitrogen 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 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
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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 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. Dispose of via a licensed waste disposal contractor.
Large spill	:	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 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.

Section 7. Handling and storage

Precautions for safe handling

Not for human or animal consumption.

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.
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
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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. Store locked up. 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 (ZnO)	CA Alberta Provincial (2009-07-01).
	TWA 2 mg/m3 Form: Respirable
	STEL 10 mg/m3 Form: Respirable
	CA British Columbia Provincial (2004-08-01).
	TWA 2 mg/m3 Form: Respirable
	STEL 10 mg/m3 Form: Respirable
	CA Ontario Provincial (2015-06-29).
	TWA 2 mg/m3 Form: Respirable particulate matter.
	STEL 10 mg/m3 Form: Respirable particulate matter.
	CA Quebec Provincial (2000-01-12).
	TWA 5 mg/m3 Form: Fume
	STEL 10 mg/m3 Form: Fume
	CA Saskatchewan Provincial (2007-08-10).
	TWA 2 mg/m3 Form: respirable dust and fume
	STEL 10 mg/m3 Form: respirable dust and fume
1,2-Ethanediol	CA Alberta Provincial (2009-07-01).
	CEIL 100 mg/m3
	CA British Columbia Provincial (2004-08-01).
	TWA 10 mg/m3 Form: only particles
	STEL 20 mg/m3 Form: only particles
	CA British Columbia Provincial (2010-09-01).
	CEIL 100 mg/m3 Form: Aerosol
	CEIL 50 ppm Form: Vapor CA Ontario Provincial (2020-07-02).
	CEIL 10 mg/m3 Form: Inhalable particulate matter, aerosol only
	CA Quebec Provincial (2000-01-12).
	STEL 127 mg/m3 50 ppm Form: VAP_MIST
	CA Saskatchewan Provincial (2007-08-10).
	CEIL 100 mg/m3 Form: Aerosol
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	CA Ontario Provincial (2020-07-02). STEL 50 ppm Form: Vapour fraction. IWA 25 ppm Form: Vapour fraction.	
Appropriate engineering controls	: 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	
Environmental exposure controls	 contaminants below any recommended or statutory limits. Emissions from ventilation or work process equipment shou 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	: A washing facility or water for eye and skin cleaning purpose should be present. Wash hands, forearms and face thoroug after handling chemical products, before eating, smoking an using the lavatory and at the end of the working period. Was contaminated clothing before reusing.	hly nd
Eye/face protection	: Safety eyewear complying with an approved standard shoul be used when a risk assessment indicates this is necessary avoid exposure to liquid splashes, mists, gases or dusts. Recommended: Tightly-fitting goggles,	d ′ to
Skin protection Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handlir 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 givest emphasized.	-
Body protection	 exact composition of the glove material. Personal protective equipment for the body should be selec based on the task being performed and the risks involved. 	ted
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 b specialist before handling this product. 	уa
Respiratory protection	 In case of inadequate ventilation wear respiratory protection Recommended Filter P2 	۱.
Personal protective equipmen (Pictograms)		

Section 9. Physical and chemical properties and safety
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characteristics

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

Appearance Physical state Color Odor Odor threshold pH		Liquid [Suspension] Pink, Odorless. Not relevant/applicable due to nature of the product. 8 [Conc. (% w/w): 1,000 g/l]
Melting point/freezing point	:	-8 °C (18 °F)
Boiling point, initial boiling point, and boiling range	:	100 °C (212 °F)
Flash point	:	Not applicable.
Evaporation rate Flammability Lower and upper explosion limit/flammability limit Vapor pressure Relative density Bulk density		Not determined. Non-flammable. Lower: Not determined. Upper: Not determined. Not determined. Not determined. Not applicable.
Density	:	1.749 g/cm3
Solubility	:	Not applicable.
Solubility in water	:	Not relevant/applicable due to nature of the product.
Miscibility with water Partition coefficient: n- octanol/water Auto-ignition temperature Decomposition temperature		Miscible in water. Not applicable. Not determined. Not determined.
Viscosity	:	Dynamic: 1,500 - 2,500 mPa.s Kinematic: Not determined
Explosive properties Oxidizing properties	:	Non-explosive. None
Particle characteristics		
Median particle size	:	Not applicable.

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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

Information on toxicological effects

Acute toxicity

Product/ingredient	Method	Species	Result	Exposure
name				
Copper oxide				
	OECD 401	Rat	1,340 mg/kg	Not applicable.
	LD50 Oral			
	OECD 403	Rat	3.34 mg/l	4 h
	LC50 Inhalation			
	Dusts and mists			
	OECD 402	Rabbit	> 5,000 mg/kg	Not applicable.
	LD50 Dermal			
Zinc oxide (ZnO)				
	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			
1,2-Ethanediol				
	LD50 Oral	Rat	7,712 mg/kg	Not applicable.
2-Pyridinethiol, 1-oxide	, sodium salt (1:1)			
	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.

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Conclusion/Summary

: No known significant effects or critical hazards.

Irritation/Corrosion

Product/ingredient name	Method	Species	Result	Exposure
Copper oxide				
	OECD 405 Eyes	Rabbit	Moderate irritant	21 d
2-Pyridinethiol, 1-oxide, s	sodium salt (1:1)			
	Eyes	Rabbit	Irritant	
	OECD 404 Skin	Rabbit	Irritant	

Conclusion/Summary

Skin	:	No known significant effects or critical hazards.
Eyes	:	Causes serious eye damage.
Respiratory	:	No known significant effects or critical hazards.

Sensitization

Product/ingredient name	Method	Species	Result
Copper oxide			
	OECD 406 Skin	Pig	Not sensitizing

Conclusion/Summary Skin Respiratory	No known significant effects or critical hazards.No known significant effects or critical hazards.	
<u>Mutagenicity</u>		
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
Copper oxide				
	OECD 416 Oral	Rat	Fertility effects- Negative LOAEL > 1500 mg/kg	Not applicable.
	OECD 414 Oral	Rabbit	Developmental- Negative	Not applicable.
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NOAEL	
6 mg/kg bw/day	

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

Specific target organ toxicity (single exposure)

No known significant effects or critical hazards.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
1,2-Ethanediol	Category 2	oral	-

Aspiration hazard

No known significant effects or critical hazards.

:	Not available.
:	Causes serious eye damage.
•	Vapor may be irritating to eyes and respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
1	No known significant effects or critical hazards.
1	May cause burns to mouth, throat and stomach.
al, c	hemical and toxicological characteristics
:	Adverse symptoms may include the following: pain, watering, redness
:	No specific data.
:	No specific data.
1	May cause burns to mouth, throat and stomach.
and	also chronic effects from short and long term exposure
	Not available. Not available.
	: : : : : : : : : : : : : : : : : : :

Long term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Potential chronic health effects

Product/ingredient name	Method	Species	Result	Exposure
Copper oxide				
	OECD 408 Sub-chronic NOAEL Oral	Rat	1,000 mg/kg	92 days 7 days per week
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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	:	May cause damage to organs through prolonged or repeated exposure.
Over-exposure signs/symptoms		
Eye contact	:	Adverse symptoms may include the following: pain, watering, redness
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	May cause burns to mouth, throat and stomach.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
YaraVita Mancozin	5,429.2 mg/kg	N/A	N/A	N/A	21 mg/l
Copper oxide	500 mg/kg	N/A	N/A	N/A	3.34 mg/l
1,2-Ethanediol	500 mg/kg	N/A	N/A	N/A	N/A
2-Pyridinethiol, 1-oxide, sodium salt (1:1)	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				
Copper oxide				
	Acute LC50	Fish	0.08 - 0.28 mg/l	96 h
	Fresh water			
	Acute EC50	Daphnia	0.031 mg/l	48 h
	Fresh water			
	OECD 201	Algae	0.333 mg/l	72 h
	Acute EC50			
	Fresh water			
Zinc oxide (ZnO)				
	OECD 203	Fish	0.1 - 1 mg/l	96 h
	Acute LC50			
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	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			
1,2-Ethanediol				
	Acute LC50	Fish	> 72,860 mg/l	96 h
	Fresh water			
2-Pyridinethiol, 1-oxic	le, sodium salt (1:1)			
	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 with long lasting effects.

Persistence and degradability

Conclusion/Summary

: No known significant effects or critical hazards.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
1,2-Ethanediol	-1.36-1.36	Not applicable.	low
Conclusion/Summary	No known	significant effects or critica	al hazards

ooneidsion/odininal y		No known significant chects of childar hazards.
<u>Mobility in soil</u>		
Soil/water partition coefficient (KOC)	-	Not available.
Mobility Other adverse effects	1	Not available. No known significant effects or critical hazards.

Section 13. Disposal considerations

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 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

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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.
14.3 Transport hazard class(es)	
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.
14.3 Transport hazard class(es)	
14.4 Packing group	
14.5 Environmental hazards	Yes.
Additional information	
Marine pollutant	: No.
Emergency schedules (EmS)	: F-A, S-F

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

Regulation: DOT Classification		
14.1 UN number	Not applicable.	
14.2 UN proper shipping name		
14.3 Transport hazard class(es)		
14.4 Packing group		
14.5 Environmental hazards		
Additional information		
Not a DOT controlled material (United States)., This product is not regulated by HMR.		

Regulation: TDG Class		
14.1 UN number	3082	
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	
14.3 Transport hazard class(es)		
14.4 Packing group		
14.5 Environmental hazards	Yes.	
Additional information Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark)		
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ure that persons do in the event of

Section 15. Regulatory information

Canadian lists

Canadian NPRI	:	The following components are listed: Carbonic acid, manganese(2+) salt (1:1) Copper oxide Zinc oxide (ZnO) 1,2-Ethanediol
CEPA Toxic substances	:	None of the components are listed.

Inventory list

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted. China inventory (IECSC): All components are listed or exempted. Australia inventory (AllC): All components are listed or exempted. United States inventory (TSCA 8b): All components are active or exempted. Canada: All components are listed or exempted.

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 HPR = Hazardous Products Regulations 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

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UN = United Nations

Procedure used to derive the classification

Classification	Justification
SERIOUS EYE DAMAGE - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY	Calculation method
(REPEATED EXPOSURE) - Category 2	
AQUATIC HAZARD (ACUTE) - Category 1	Calculation method
AQUATIC HAZARD (LONG-TERM) -	Calculation method
Category 1	
Nation Dept. Memo Subst Spher	EACH ECHA/IUCLID5 CSR. nal Institute for Occupational Safety and Health, U.S. of Health, Education, and Welfare, Reports and oranda Registry of Toxic Effects of Chemical ances. ra Solutions Inc., 4777 Levy Street, St Laurent, Quebec 2P9, Canada.

History		
Date of printing	1	04/25/2022
Date of issue/Date of revision	1	04/14/2022
Date of previous issue	1	10/07/2020
Revision comments	•	Change in Section 2: GHS classification and Section 3: Composition
Version	1	4.0
Prepared by	1	Product Stewardship and Compliance (PSC).
Indicates information that ha	s ch	anged from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.