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Version : 4.1

SAFETY DATA SHEET

YaraVita B-MOLY

Section 1. Identification

GHS product identifier : YaraVita B-MOLY
Product type : Liquid
Product code : PYPCTL

Uses

Area of application : Professional applications
Material uses : Fertilizers.

Supplier

Supplier's details : Yara North America, Inc.

Address

Street : 100 North Tampa Street, Suite 3800
Postal code : 33602
City : TAMPA
Country : United States

Telephone number : +1 813 222 5700
Fax no. : +1 813 875 5735
e-mail address of person responsible for this SDS : yna-hesq@yara.com
Emergency telephone number (with hours of operation) : US: Chemtrec 24-hours Emergency Response: 1-800-424-9300
Canada: 24 Hour Emergency Service, CHEMTREC 1-800-424-9300

National advisory body/Poison Center

Name : The National Poisons Emergency number
Telephone number : 1 800 222 1222

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture. : TOXIC TO REPRODUCTION - Category 1B

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H360 May damage fertility or the unborn child.

Precautionary statements

Prevention :

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

P202 Do not handle until all safety precautions have been read and understood.

Response : P308 IF exposed or concerned:

P313 Get medical attention.

Disposal :

P501 Dispose of contents and container according to local regulations.

Hazards not otherwise classified : None known.

Additional information : None.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Boric acid, compd. with 2-aminoethanol (1:3)	>= 50 - <= 65	26038-87-9
Phosphoric acid	>= 2.5 - <= 3	7664-38-2
2-Pyridinethiol, 1-oxide, sodium salt (1:1)	>= 0.001 - <= 0.01	3811-73-2

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 and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

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

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. Get medical attention if you feel unwell.

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. Get medical attention if you feel unwell.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : 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.

Specific treatments : 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 : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None identified.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials: phosphorus oxides, metal oxide/oxides, 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-flammable.

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. 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).

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 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. 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 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.

Specific recommendations to end users : 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

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Boric acid, compd. with 2-aminoethanol (1:3)	None.
Phosphoric acid	**ACGIH TLV (1994-09-01). [Phosphoric acid]** TWA 1 mg/m3 STEL 3 mg/m3 **OSHA PEL 1989 (1989-03-01). [Phosphoric acid]** TWA 1 mg/m3 STEL 3 mg/m3 **OSHA PEL (1993-06-30). [Phosphoric acid]** TWA 1 mg/m3 **NIOSH REL (1994-06-01). [PHOSPHORIC ACID]** TWA 1 mg/m3 STEL 3 mg/m3 **CAL OSHA PEL (2018-05-16). [phosphoric acid]** TWA 1 mg/m3 STEL 3 mg/m3
2-Pyridinethiol, 1-oxide, sodium salt (1:1)	None.

Biological exposure indices

No exposure indices known.

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 contaminants below any recommended or statutory limits.

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.

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.

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.

Appearance

Physical state : Liquid

Color : Yellow.,

Odor : Odorless.

pH	:	7 - 8 [Conc.: 1,000 g/l]
Melting point/freezing point	:	< -5 °C (< 23 °F)
Boiling point, initial boiling point, and boiling range	:	> 100 °C (> 212 °F)
Flash point	:	Not applicable.
Flammability	:	Non-flammable.
Lower and upper explosion limit/flammability limit	:	**Lower:** Not applicable. **Upper:** Not applicable.
Vapor pressure	:	< 23 hPa
Relative vapor density	:	< 1 [Air = 1]
Density	:	1.29 g/cm3
Miscibility with water	:	Miscible in water.
Partition coefficient: n-octanol/water	:	Not applicable.
Auto-ignition temperature	:	Not determined.
Decomposition temperature	:	Not applicable.
Viscosity	:	**Dynamic:** < 100 mPa.s **Kinematic:** < 75 mm2/s
Explosive properties	:	Non-explosive.
Oxidizing properties	:	Non-oxidizer. No oxidizing ingredients present.

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	:	No specific data.
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 name	Method	Species	Result	Exposure
Boric acid, compd. with 2-aminoethanol (1:3)				
	OECD 420 LD50 Oral	Rat	> 5,000 mg/kg	Not applicable.
	OECD 402 LD50 Dermal	Rat	> 5,000 mg/kg	Not applicable.
Phosphoric acid				
	OECD 423 LD50 Oral	Rat	300 mg/kg	Not applicable.
2-Pyridinethiol, 1-oxide, sodium salt (1:1)				
	OECD 423 LD50 Oral	Rat	500 mg/kg	Not applicable.
	LC50 Inhalation Dusts and mists	Rat	0.5 mg/l	4 h
	LD50 Dermal	Rabbit	790 mg/kg	Not applicable.

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

Irritation/Corrosion

Product/ingredient name	Method	Species	Result	Exposure
Phosphoric acid				
	Primary dermal irritation index (PDII) Skin	Rabbit	Visible necrosis	1 h
2-Pyridinethiol, 1-oxide, sodium salt (1:1)				
	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 : No known significant effects or critical hazards.

Respiratory : No known significant effects or critical hazards.

Mutagenicity

Product/ingredient name	Method	Test detail	Result
Boric acid, compd. with 2-aminoethanol (1:3)			
	OECD 476	Mammalian-Animal Experiment: In vitro	Negative
	OECD 471	Bacteria Experiment: In vitro	Negative

	OECD 473	Mammalian-Human Experiment: In vitro	Negative

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

Carcinogenicity

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

Reproductive toxicity

Conclusion/Summary : May damage the unborn child.

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
2-Pyridinethiol, 1-oxide, sodium salt (1:1)	Category 1	-	nervous system

Aspiration hazard

No known significant effects or critical hazards.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : 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 : 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
Boric acid, compd. with 2-aminoethanol (1:3)				
	OECD 407 Sub-acute NOAEL Oral	Rat	250 mg/kg	28 days

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage the unborn child.

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

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
Phosphoric acid	500 mg/kg	N/A	N/A	N/A	N/A
2-Pyridinethiol, 1-oxide, sodium salt (1:1)	500 mg/kg	790 mg/kg	N/A	N/A	0.5 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Method	Species	Result	Exposure
Boric acid, compd. with 2-aminoethanol (1:3)				
	OECD 203 Acute LC50 Fresh water	Fish	> 100 mg/l	96 h
	OECD 202 Acute EC50 Fresh water	Daphnia	423 mg/l	48 h
	OECD 201 Acute EC50 Fresh water	Algae	26 mg/l	72 h
Phosphoric acid				
	OECD 202 Acute EC50 Fresh water	Daphnia	> 100 mg/l	48 h
	OECD 201 Acute EC50 Fresh water	Algae	> 100 mg/l	72 h
2-Pyridinethiol, 1-oxide, sodium salt (1:1)				
	OECD 203 Acute LC50 Fresh water	Fish	0.0066 mg/l	96 h
	Acute EC50 Fresh water	Daphnia	0.022 mg/l	48 h
	Acute EC50	Algae	0.46 mg/l	96 h

	Fresh water			

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

Persistence and degradability

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

Bioaccumulative potential

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

Mobility in soil

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

Mobility : Not available.

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

Section 13. Disposal considerations

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. 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

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	Not applicable.	Not applicable.	Not applicable.
Transport hazard class(es)	Not applicable.	Not applicable.	Not applicable.
Packing group	Not applicable.	Not applicable.	Not applicable.

Environmental hazards	No.	No.	No.

Additional information

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.

Transport in bulk according to IMO instruments **Proper shipping name** : Not listed.

Section 15. Regulatory information

United States

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Phosphoric acid;

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : TOXIC TO REPRODUCTION - Category 1B

Composition/information on ingredients

Name	%	Classification
Boric acid, compd. with 2-aminoethanol (1:3)	>= 50 - <= 65	TOXIC TO REPRODUCTION - Category 1B
Phosphoric acid	>= 2.5 - <= 3	SERIOUS EYE DAMAGE - Category 1 SKIN CORROSION - Category 1B ACUTE TOXICITY - oral - Category 4 CORROSIVE TO METALS - Category 1

State regulations

Massachusetts	:	The following components are listed: Phosphoric acid
New York	:	None of the components are listed.
New Jersey	:	The following components are listed: PHOSPHORIC ACIDPhosphoric acid
Pennsylvania	:	The following components are listed: PHOSPHORIC ACIDPhosphoric acid

California Prop. 65

⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Inventory list

Philippines inventory (PICCS): All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Korea inventory: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Australia inventory (AIIC): All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI): 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: All components are listed or exempted.
Thailand: All components are listed or exempted.
Viet Nam: All components are listed or exempted.

Section 16. Other information

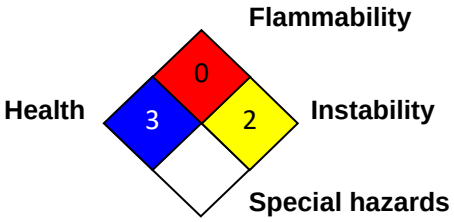
Hazardous Material Information System (U.S.A.)

Health	*	0
Flammability		0
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.
The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Chronic toxicity:
- : No data available.
*** :** Carcinogen, Target organs, Reproductive effects, Sensitizer to lungs

National Fire Protection Association (U.S.A.)



Procedure used to derive the classification

Classification	Justification
TOXIC TO REPRODUCTION - Category 1B	Calculation method

History

Date of printing	:	08/25/2025
Date of issue/Date of revision	:	03/24/2025
Date of previous issue	:	07/17/2024
Revision comments	:	The following section contains updated information: 1
Version	:	4.1
Prepared by	:	Product Stewardship and Compliance (PSC).
Key to abbreviations	:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor 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 SGG = Segregation Group UN = United Nations
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.

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

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