

## **SAFETY DATA SHEET**

**Nutrition & Biosciences USA 1, LLC** 

Product name: AQUCAR™ DB 100 Water Treatment Issue Date: 10/19/2018

Microbiocide

Print Date: 01/26/2022

Nutrition & Biosciences USA 1, LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## 1. IDENTIFICATION

Product name: AQUCAR™ DB 100 Water Treatment Microbiocide

#### Recommended use of the chemical and restrictions on use

**Identified uses:** For biocidal applications. For industrial use. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.

#### **COMPANY IDENTIFICATION**

Nutrition & Biosciences USA 1, LLC 3490 Winton Place Rochester NY 14623 UNITED STATES

Customer Information Number: 1-800-526-3649

SDS.ENABLERS@iff.com

#### **EMERGENCY TELEPHONE NUMBER**

**24-Hour Emergency Contact:** 1-800-424-9300 **Local Emergency Contact:** 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

#### **Hazard classification**

This product is hazardous under the criteria of the Hazardous Products Regulation (HPR) as implemented under the Workplace Hazardous Materials Information System (WHMIS 2015).

Acute toxicity - Category 3 - Oral
Acute toxicity - Category 2 - Inhalation
Skin corrosion - Category 1
Serious eye damage - Category 1
Skin sensitisation - Sub-category 1B

Label elements Hazard pictograms



Signal word: DANGER!

#### **Hazards**

Toxic if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Fatal if inhaled.

## **Precautionary statements**

#### Prevention

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

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

Wear respiratory protection.

#### Response

IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

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/doctor.

If skin irritation or rash occurs: Get medical advice/ attention.

Take off contaminated clothing and wash it before reuse.

#### Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

### **Disposal**

Dispose of contents/ container to an approved waste disposal plant.

## Other hazards

No data available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: 2,2-dibromo-2-cyanoacetamide

This product is a substance.

Component	CASRN	Concentration
2.2 Dibrara 2	40222.04.2	. 07.0 %
2,2-Dibromo-3- nitrilopropionamide	10222-01-2	> 97.0 %
2,2-Dibromomalonamide	73003-80-2	<= 0.2 %

## 4. FIRST AID MEASURES

# Description of first aid measures General advice:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

**Skin contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly. Suitable emergency safety shower facility should be immediately available.

**Eye contact:** Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

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

**Notes to physician:** Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome). Maintain adequate ventilation and oxygenation of the patient. If breathing is difficult, oxygen should be administered by qualified personnel. May cause asthma-like (reactive airways) symptoms. Bronchodilators,

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expectorants, antitussives and corticosteroids may be of help. Material may cause severe pulmonary edema. For persons receiving significant exposure to this material, consider chest x-ray and keep under observation for 48 - 72 hr. for delayed onset of pulmonary edema. Humidified oxygen, intermittent positive pressure breathing, assisted respiration/CPAP and steroid therapy should be considered in treatment. Physical exertion may potentiate exposure effects during the first 24 - 72 hours. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. Probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

## 5. FIREFIGHTING MEASURES

**Suitable extinguishing media:** This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

Unsuitable extinguishing media: No data available

## Special hazards arising from the substance or mixture

**Hazardous combustion products:** Fire conditions may cause this product to decompose. Refer to section 10 - Thermal Decomposition.

Unusual Fire and Explosion Hazards: Container may vent and/or rupture due to fire.

## Advice for firefighters

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. This material does not burn. Fight fire for other material that is burning. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Evacuate area. Refer to section 7, Handling, for additional precautionary measures. Keep upwind of spill. Ventilate area of leak or spill. Only trained and properly protected personnel must be involved in clean-up operations. Spilled material may cause a slipping hazard. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

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**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Keep out of reach of children. Do not get in eyes, on skin, on clothing. Do not breathe dust. Avoid prolonged or repeated contact with skin. Do not swallow. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage:** Store in original container. Keep container tightly closed. Do not store in: Aluminum. Brass. Copper. Copper alloys. Mild steel. Stainless steel.

Storage stability

Shelf life: Use within 36 Month Storage temperature: < 35 °C

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Control parameters**

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Consult local authorities for recommended exposure limits.

Component	Regulation	Type of listing	Value/Notation
2,2-Dibromo-3-	ACGIH	С	5 mg/m3 , Cyanide
nitrilopropionamide			
	Dow IHG	TWA Respirable	0.05 mg/m3
		fraction	
	Dow IHG	TWA Respirable	Skin Sensitizer
		fraction	
	Dow IHG	STEL Respirable fraction	0.1 mg/m3
	Dow IHG	STEL Respirable	Skin Sensitizer
		fraction	
	CA QC OEL	С	11 mg/m3 10 ppm,
			Cyanide

#### **Exposure controls**

**Engineering controls:** Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

## Individual protection measures

Eye/face protection: Use chemical goggles.

**Skin protection** 

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene. Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

The following should be effective types of air-purifying respirators: When dust/mist are present use a/an Particulate filter. When combinations of vapors, acids, or dusts/mists are present use a/an Organic vapor cartridge with a particulate pre-filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** 

Physical state Powder

Color White to yellow Odor Mild pungent

Odor Threshold No test data available pH 6.9 CIPAC MT 75.1

Melting point/range 124.5 °C EC Method A2 (with decomposition)

Freezing point Not applicable to solids

Boiling point (760 mmHg) Decomposes before boiling

Flash point closed cup Not applicable to solids

**Evaporation Rate (Butyl Acetate** 

= 1)

No test data available

Flammability (solid, gas) Non-flammable Flammability (solids)

Lower explosion limit

Upper explosion limit

Not impact sensitive.

Not impact sensitive.

**Vapor Pressure** 0.00119 hPa at 19.2 °C *Literature* 

Relative Vapor Density (air = 1) No test data available

Relative Density (water = 1) 1.356 at 25 °C Literature

Water solubility 1.53 % at 18.3 °C Literature

Partition coefficient: n- log Pow: 0.79 Measured

octanol/water

**Auto-ignition temperature** *EC Method A16* Does not ignite before melting.

Decomposition temperature> 201 °C LiteratureKinematic ViscosityNot applicable to solidsExplosive propertiesNot impact sensitive.

Oxidizing properties No

Molecular weight 242 g/mol Literature

NOTE: The physical data presented above are typical values and should not be construed as a specification.

## 10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

**Chemical stability:** Stable under recommended storage conditions. See Storage, Section 7. Unstable at elevated temperatures.

Possibility of hazardous reactions: Polymerization will not occur.

**Conditions to avoid:** Avoid temperatures above 70°C (158°F) Product decomposes above melting temperature. Generation of gas during decomposition can cause pressure in closed systems.

**Incompatible materials:** Avoid contact with: Amines. Strong bases. Strong oxidizers. Strong reducing agents. Avoid contact with metals such as: Aluminum.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon dioxide. Dibromoacetonitrile. Hydrogen bromide. Nitrogen oxides. Decomposition products can include trace amounts of: Cyanogen bromide.

## 11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

## **Acute toxicity**

#### Acute oral toxicity

Moderate toxicity if swallowed. Swallowing may result in irritation or burns of the mouth, throat, and gastrointestinal tract. May cause dizziness and drowsiness.

LD50, Rat, female, 167 mg/kg LD50, Rat, male, 224 mg/kg

#### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, Rabbit, > 2,000 mg/kg No deaths occurred at this concentration.

#### Acute inhalation toxicity

Vapors are unlikely due to physical properties. Prolonged excessive exposure to dust may cause serious adverse effects, even death. Excessive exposure may cause severe irritation to upper respiratory tract (nose and throat) and lungs. May cause severe pulmonary edema (fluid in the lungs). Prolonged and excessive exposure to fine dusts may cause lung injury. Study was conducted on dust aerosol by grinding the material to produce a fine respirable powder.

LC50, Rat, female, 4 Hour, Dust, 0.24 mg/l LC50, Rat, male, 4 Hour, Dust, 0.31 mg/l

## Skin corrosion/irritation

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

## Serious eye damage/eye irritation

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

#### Sensitization

Skin contact may cause an allergic skin reaction.

For respiratory sensitization:

No relevant data found.

#### Specific Target Organ Systemic Toxicity (Single Exposure)

The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### Specific Target Organ Systemic Toxicity (Repeated Exposure)

Excessive exposure may increase the blood and tissue levels of bromine.

Observations in animals include kidney effects following repeated ingestion of active ingredient, but no evidence of systemic toxicity following repeated dermal exposure at maximum attainable doses Dust may cause irritation of the upper respiratory tract (nose and throat) and lungs.

#### Carcinogenicity

Did not cause cancer in laboratory animals.

## **Teratogenicity**

Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

## Reproductive toxicity

In animal studies, did not interfere with reproduction.

#### Mutagenicity

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

#### **Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

## 12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

#### **Toxicity**

#### Acute toxicity to fish

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, 1 mg/l

#### Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, 0.60 mg/l

#### Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, 0.50 mg/l

#### Toxicity to bacteria

EC50, activated sludge, 3.1 mg/l

EC50, activated sludge, Respiration inhibition, 3 Hour, 8.2 mg/l

#### Chronic aquatic toxicity

#### Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), flow-through test, 21 d, 0.06 mg/l

## **Toxicity to Above Ground Organisms**

Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).

dietary LC50, Colinus virginianus (Bobwhite quail), > 10,000 ppm

dietary LC50, Anas platyrhynchos (Mallard duck), > 10,000 ppm

#### Persistence and degradability

Biodegradability: Abiotic degradation: The material is rapidly degradable by abiotic means.

10-day Window: Fail **Biodegradation:** 35 - 78 % **Exposure time:** 28 d

Method: OECD Test Guideline 301B or Equivalent

10-day Window: Not applicable **Biodegradation:** 83.3 % **Exposure time:** 28 d

Method: OECD Test Guideline 303A or Equivalent

10-day Window: Not applicable **Biodegradation:** 17 - 22 %

Exposure time: 28 d

Method: OECD Test Guideline 306 or Equivalent

Theoretical Oxygen Demand: 0.59 mg/mg

Chemical Oxygen Demand: 0.26 mg/mg

**Stability in Water (1/2-life)**Hydrolysis, half-life, 65 hrs, pH 7

**Photodegradation** 

Test Type: Half-life (indirect photolysis)

**Sensitization:** OH radicals **Atmospheric half-life:** 5.3 d

Method: Estimated.

Bioaccumulative potential

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 0.79 Measured

Bioconcentration factor (BCF): 13 Fish Measured

Mobility in soil

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 15 Estimated.

## 13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

## 14. TRANSPORT INFORMATION

**TDG** 

Proper shipping name CORROSIVE SOLID, TOXIC, N.O.S.(2,2-Dibromo-3-

nitrilopropionamide)

UN number UN 2923 Class 8 (6.1) Packing group

Marine pollutant 2,2-Dibromo-3-nitrilopropionamide

Classification for SEA transport (IMO-IMDG):

**Proper shipping name** CORROSIVE SOLID, TOXIC, N.O.S.(2,2-Dibromo-3-

nitrilopropionamide)

UN number UN 2923 Class 8 (6.1) Packing group

Marine pollutant 2,2-Dibromo-3-nitrilopropionamide

Transport in bulk Consult IMO regulations before transporting ocean bulk

according to Annex I or II of MARPOL 73/78 and the

**IBC or IGC Code** 

## Classification for AIR transport (IATA/ICAO):

**Proper shipping name** Corrosive solid, toxic, n.o.s.(2,2-Dibromo-3-

nitrilopropionamide)

UN number UN 2923 Class 8 (6.1) Packing group

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

#### 15. REGULATORY INFORMATION

#### Canadian Domestic Substances List (DSL)

This product contains chemical substance(s) exempt from CEPA DSL Inventory requirements. It is regulated as a pesticide subject to Pest Control Products Act (PCPA) requirements.

#### 16. OTHER INFORMATION

## Revision

Identification Number: 11007463 / A749 / Issue Date: 10/19/2018 / Version: 15.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this

document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
С	Ceiling
CA QC OEL	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Dow IHG	Dow Industrial Hygiene Guideline
STEL	Short term exposure limit
TWA	Time weighted average

#### Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials: bw - Body weight: CERCLA - Comprehensive Environmental Response, Compensation. and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada): ECx - Concentration associated with x% response: EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA -Resource Conservation and Recovery Act: REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA -Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

## **Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

Nutrition & Biosciences USA 1, LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-

specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

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