SAFETY DATA SHEET

Nutrition & Biosciences USA 2, LLC

Product name: ROZONE™ 2000 **Issue Date:** 12/15/2020

Print Date: 01/05/2023

Nutrition & Biosciences USA 2, 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: ROZONE™ 2000

Recommended use of the chemical and restrictions on use
Identified uses: Biocidal product

COMPANY IDENTIFICATION
Nutrition & Biosciences USA 2, LLC
1209 Orange Street
Wilmington DE 19801
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: 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification
GHS classification in accordance with 29 CFR 1910.1200
Acute toxicity - Category 4 - Oral
Acute toxicity - Category 3 - Inhalation
Skin corrosion - Category 1
Serious eye damage - Category 1
Skin sensitisation - Category 1

Label elements
Hazard pictograms

Signal word: **DANGER!**

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

Precautionary statements

Prevention
Avoid breathing 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 must not be allowed out of the workplace.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. 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/shower.
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.
Wash contaminated clothing 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

Chemical nature: Solution of organic and inorganic compounds
This product is a mixture.

Component	CASRN	Concentration
Propylene glycol phenyl ether	770-35-4	>= 60.0 - < 70.0 %
4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one	64359-81-5	>= 16.0 - < 21.0 %

C10-16-Alkylbenzene sulfonic acid	68584-22-5	>= 5.0 - < 10.0 %
Propanediol	57-55-6	>= 5.0 - < 10.0 %
2-n-Octyl-4-isothiazolin-3-one	26530-20-1	>= 0.05 - < 0.1 %
Copper stabilizer	Trade Secret	>= 1.0 - < 5.0 %

4. FIRST AID MEASURES

Description of first aid measures
Inhalation: Move to fresh air. Give artificial respiration if breathing has stopped. If symptoms persist, call a physician.

Skin contact: IMMEDIATELY get under a safety shower. Remove contaminated clothing. Wash off with soap and water. Immediate medical attention is required. Wash contaminated clothing before re-use. Do not take clothing home to be laundered. Discard contaminated shoes, belts, and other articles made of leather.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Ingestion: Drink 1 or 2 glasses of water. IMMEDIATELY see a physician. Never 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: MATERIAL IS CORROSIVE. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock and convulsions maybe necessary.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: No data available

Special hazards arising from the substance or mixture
Hazardous combustion products: No data available

Unusual Fire and Explosion Hazards: Combustion generates toxic fumes of the following: hydrogen chloride Nitrogen oxides (NOx) sulfur oxides

Advice for firefighters
Fire Fighting Procedures: Cool containers/tanks with water spray. Minimize exposure. Do not breathe fumes. Contain run-off.

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Wear a NIOSH approved (or equivalent) respirator (with organic vapor/acid gas cartridge and a dust/mist filter) during spill clean-ups and deactivation of this material. MATERIAL IS CORROSIVE. Protective clothing, including chemical splash goggles, nitrile or butyl rubber full length gloves, rubber apron, or clothing made of nitrile or butyl rubber, and rubber overshoes must be worn during spill clean-ups and deactivation of this material. If material comes in contact with the skin during clean-up operations, IMMEDIATELY remove all contaminated clothing and wash exposed skin areas with soap and water. See SECTION 4, First Aid Measures, for further information.

Environmental precautions: Do not allow material to contaminate ground water system. Prevent product from entering drains.

Methods and materials for containment and cleaning up: WARNING: KEEP SPILLS AND CLEAN-UP RESIDUALS OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER. Adsorb the spill with spill pillows or inert solids such as clay or vermiculite, and transfer contaminated materials to suitable containers for recovery or disposal. Wipe contaminated area with TEXANOL® (2,2,4-trimethyl-1,3-pentanediol monoisobutyrate) or butyl CARBITOL®(diethylene glycol monobutyl ether) using a clean rag(s) or disposable pad(s) or mop(s). Isopropanol can also be used, but special care should be taken due to the flammability of this solvent. Discard contaminated wiping materials into suitable containers for recovery or disposal. Decontaminate spill area with a freshly prepared aqueous solution of 10% sodium thiosulfate. Let stand for 30 minutes. Rinse decontamination solution to chemical sewer (if in accordance with local procedures, permits and regulations). DO NOT add decontamination solution to the waste pail to deactivate the adsorbed product. See SECTION 13, Disposal Considerations, for information regarding the disposal of contained spills. TEXANOL® is a trademark of Eastman Chemical Co. CARBITOL® is a trademark of Union Carbide Co.

7. HANDLING AND STORAGE

Precautions for safe handling: This material is corrosive. For personal protection see section 8. Do not handle material near food, feed or drinking water.

Conditions for safe storage: Keep from freezing. Keep in a well-ventilated place. Do not store this material in containers made of the following: steel Do not store this material near food, feed or drinking water.
CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied. Expiration date based only on retention of >95% actives during storage at 20ºC-25ºC (68ºF-77ºF).

Storage stability
Storage temperature: 10 - 43 °C (50 - 109 °F)

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.

Component	Regulation	Type of listing	Value
4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one	Dow IHG	TWA	0.06 mg/m3
	Dow IHG	STEL	0.1 mg/m3
Propanediol	US WEEL	TWA	10 mg/m3
2-n-Octyl-4-isothiazolin-3-one	Dow IHG	TWA	0.2 mg/m3
	Dow IHG	STEL	0.6 mg/m3

Exposure controls
Engineering controls: Use local exhaust ventilation with a minimum capture velocity of 150 ft/min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of "Industrial Ventilation: A Manual of Recommended Practice" published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Protective measures: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Individual protection measures
Eye/face protection: Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Eye protection worn must be compatible with respiratory protection system employed.
Skin protection
Hand protection: Chemical-resistant gloves should be worn whenever this material is handled. The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection): butyl-rubber Nitrile rubber Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water. NOTE: Material is a possible skin sensitizer.
Other protection: Wear as appropriate: Chemical resistant apron complete suit protecting against chemicals
Respiratory protection: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Up to 10 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. Up to 1000 ppm organic vapor: Wear a properly fitted NIOSH approved (or equivalent) full-facepiece, air-purifying respirator, OR full-facepiece, airline respirator in the pressure demand mode. Above 1000 ppm organic vapor or Unknown: Wear a properly fitted NIOSH approved (or equivalent) self-contained breathing appartus in the pressure demand mode, OR full-facepiece, airline respirator in the pressure demand mode with emergency escape provision. Air-purifying respirators should be equipped with NIOSH approved (or equivalent) organic vapor cartridges and R95 or P95 filters.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	liquid clear
Color	green
Odor	Mild odor
Odor Threshold	No data available
pH	2.8 Aqueous solution
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	243.00 °C (469.40 °F) Solvent
Flash point	116.00 °C (240.80 °F) TCC (Solvent)
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	Not Applicable
Lower explosion limit	ca.0.70 % vol
Upper explosion limit	ca.9.40 % vol
Vapor Pressure	0.1 mmHg
Relative Vapor Density (air = 1)	ca.53.0000
Relative Density (water = 1)	1.09 at 25 °C (77 °F)
Water solubility	slightly soluble
Partition coefficient: n-octanol/water	log Pow: 2.8 *OECD Test Guideline 107 or Equivalent*
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Dynamic Viscosity	58 mPa.s at 25 °C (77 °F)
Kinematic Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Molecular weight	No data available
Percent volatility	60 - 70 %

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

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: No data available

Possibility of hazardous reactions: Stable under recommended storage conditions.
Product will not undergo polymerization.

Conditions to avoid: No data available

Incompatible materials: Avoid contact with the following: Oxidizing agents Amines Reducing agents Mercaptans.

Hazardous decomposition products: Nitrogen oxides (NOx) Sulphur oxides hydrogen chloride

11. TOXICOLOGICAL INFORMATION

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

Acute toxicity

Acute oral toxicity
LD50, Rat, 978 mg/kg

Acute dermal toxicity
LD50, Rabbit, > 2,000 mg/kg

Acute inhalation toxicity
LC50, Rat, 4 Hour, dust/mist, 0.758 mg/l

Skin corrosion/irritation
This material is corrosive.

Serious eye damage/eye irritation
Corrosive

Sensitization
Causes sensitisation.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)
Contains component(s) which are classified as specific target organ toxicant, single exposure, category 3.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Product test data not available. Refer to component data.

Carcinogenicity
Contains component(s) which did not cause cancer in laboratory animals.

Teratogenicity
Did not show teratogenic effects in animal experiments. Active ingredient

Reproductive toxicity
This product is not a reproductive hazard. Active ingredient

Mutagenicity
Non-mutagenic Active ingredient

Aspiration Hazard
Product test data not available. Refer to component data.

COMPONENTS INFLUENCING TOXICOLOGY:

Propylene glycol phenyl ether

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

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

4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one

Specific Target Organ Systemic Toxicity (Repeated Exposure)
In animals, effects have been reported on the following organs:
Stomach.

Aspiration Hazard
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

C10-16-Alkylbenzene sulfonic acid

Specific Target Organ Systemic Toxicity (Repeated Exposure)
For similar material(s):
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Aspiration Hazard
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

Propanediol

Specific Target Organ Systemic Toxicity (Repeated Exposure)
In rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effects.

Aspiration Hazard
No aspiration toxicity classification

2-n-Octyl-4-isothiazolin-3-one

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Aspiration Hazard
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

Copper stabilizer

Specific Target Organ Systemic Toxicity (Repeated Exposure)
For similar material(s):
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Aspiration Hazard
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

12. ECOLOGICAL INFORMATION

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

General Information
Very toxic to aquatic organisms.

Toxicity

Propylene glycol phenyl ether

Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Pimephales promelas (fathead minnow), static test, 96 Hour, 280 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
LC50, Daphnia magna (Water flea), static test, 48 Hour, 370 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants
EC50, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, > 100 mg/l, EU Method C.3 (Algal Inhibition test)

Toxicity to bacteria
EC50, 30 min, > 1,000 mg/l, OECD Test Guideline 209

4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one

Acute toxicity to fish
Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).
LC50, Oncorhynchus mykiss (rainbow trout), flow-through, 96 Hour, 0.0027 mg/l, OECD Test Guideline 203 or Equivalent
LC50, Bluegill sunfish (Lepomis macrochirus), flow-through, 96 Hour, 0.014 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), 48 Hour, 0.0057 mg/l

Acute toxicity to algae/aquatic plants
EbC50, Pseudokirchneriella subcapitata (green algae), static test, 72 Hour, 0.048 mg/l, OECD Test Guideline 201
ErC50, Pseudokirchneriella subcapitata (green algae), static test, 72 Hour, 0.077 mg/l, OECD Test Guideline 201

Toxicity to bacteria
EC50, activated sludge, Respiration rates., 5.70 mg/l

Chronic toxicity to fish
NOEC, Oncorhynchus mykiss (rainbow trout), flow-through, 97 d, growth, 0.00056 mg/l

Chronic toxicity to aquatic invertebrates
NOEC, Daphnia magna (Water flea), 21 d, 0.00063 mg/l

C10-16-Alkylbenzene sulfonic acid

Acute toxicity to fish
Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

Acute toxicity to aquatic invertebrates
For this family of materials:
EC50, Daphnia magna (Water flea), 48 Hour, 5.2 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants
For this family of materials:
ErC50, Desmodesmus subspicatus (green algae), 72 Hour, Growth rate, 36 mg/l
NOEC, Pseudokirchneriella subcapitata (green algae), 72 Hour, 1,000 mg/l

Toxicity to bacteria
EC10, Bacteria, 16 Hour, 51 mg/l

Propanediol

Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 40,613 mg/l, OECD Test Guideline 203

Acute toxicity to aquatic invertebrates
LC50, Ceriodaphnia dubia (water flea), static test, 48 Hour, 18,340 mg/l, OECD Test Guideline 202

Acute toxicity to algae/aquatic plants
ErC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate inhibition, 19,000 mg/l, OECD Test Guideline 201
NOEC, Pseudokirchneriella subcapitata (green algae), 14 day, 15,000 mg/l

Toxicity to bacteria
NOEC, Pseudomonas putida, 18 Hour, > 20,000 mg/l

Chronic toxicity to aquatic invertebrates
NOEC, Ceriodaphnia dubia (water flea), semi-static test, 7 d, number of offspring, 13,020 mg/l

2-n-Octyl-4-isothiazolin-3-one

Acute toxicity to fish
Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).
LC50, Oncorhynchus mykiss (rainbow trout), flow-through test, 96 Hour, 0.047 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), flow-through test, 48 Hour, 0.320 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants
EC50, alga Scenedesmus sp., 72 Hour, Biomass, 0.084 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria
EC50, activated sludge, Respiration inhibition, 3 Hour, 30.2 mg/l, OECD 209 Test

Chronic toxicity to fish
NOEC, Oncorhynchus mykiss (rainbow trout), 21 d, 0.022 mg/l

Chronic toxicity to aquatic invertebrates
NOEC, Daphnia magna (Water flea), 21 d, 0.0016 mg/l

Toxicity to Above Ground Organisms
dietary LC50, Anas platyrhynchos (Mallard duck), 8 d, 1,215 mg/kg
dietary LC50, Colinus virginianus (Bobwhite quail), 8 d, > 5,620 mg/kg
oral LD50, Colinus virginianus (Bobwhite quail), 21 d, 346 mg/kg

Copper stabilizer

Acute toxicity to fish
Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

Acute toxicity to aquatic invertebrates
For this family of materials:
EC50, Daphnia magna (Water flea), 48 Hour, 5.2 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants
For this family of materials:
ErC50, Desmodesmus subspicatus (green algae), 72 Hour, Growth rate, 36 mg/l
NOEC, Pseudokirchneriella subcapitata (green algae), 72 Hour, 1,000 mg/l

Toxicity to bacteria
EC10, Bacteria, 16 Hour, 51 mg/l

Persistence and degradability

Propylene glycol phenyl ether

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation rate may increase in soil and/or water with acclimation.
10-day Window: Fail
Biodegradation: 72 %
Exposure time: 28 d
Method: OECD Test Guideline 301F or Equivalent

Theoretical Oxygen Demand: 2.31 mg/mg

Photodegradation
Atmospheric half-life: 3.5 Hour

Method: Estimated.

4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one

Biodegradability: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.
Considered to be rapidly degradable.
Biodegradation (Aquatic metabolism) CAS # 64359-81-5 t 1/2 anaerobic = < 1hr. CAS # 64359-81-5 t 1/2 aerobic = < 1hr.

C10-16-Alkylbenzene sulfonic acid

Biodegradability: For similar material(s): Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.
10-day Window: Pass
Biodegradation: 84 %
Exposure time: 28 d
Method: OECD Test Guideline 301E or Equivalent
10-day Window: Pass
Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301B or Equivalent

Propanediol

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation may occur under anaerobic conditions (in the absence of oxygen).
10-day Window: Pass
Biodegradation: 81 %
Exposure time: 28 d
Method: OECD Test Guideline 301F or Equivalent
10-day Window: Not applicable
Biodegradation: 96 %
Exposure time: 64 d
Method: OECD Test Guideline 306 or Equivalent

Theoretical Oxygen Demand: 1.68 mg/mg

Chemical Oxygen Demand: 1.53 mg/mg

Biological oxygen demand (BOD)

Incubation Time	BOD
5 d	69.000 %
10 d	70.000 %
20 d	86.000 %

Photodegradation
Atmospheric half-life: 10 Hour
Method: Estimated.

2-n-Octyl-4-isothiazolin-3-one

Biodegradability: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Biodegradation: 25 %
Exposure time: 30 d
Method: Method Not Specified.

Copper stabilizer

Biodegradability: For similar material(s): Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.
10-day Window: Pass
Biodegradation: 84 %
Exposure time: 28 d
Method: OECD Test Guideline 301E or Equivalent
10-day Window: Pass
Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301B or Equivalent

Bioaccumulative potential

Partition coefficient: n-octanol/water(log Pow): 2.8 OECD Test Guideline 107 or Equivalent

Mobility in soil

Propylene glycol phenyl ether

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient (Koc): 19 - 21 Estimated.

4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one

Expected to be relatively immobile in soil (Koc > 5000).
Partition coefficient (Koc): 5662 - 7865 Measured

C10-16-Alkylbenzene sulfonic acid

No relevant data found.

Propanediol

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient (Koc): < 1 Estimated.

2-n-Octyl-4-isothiazolin-3-one

Potential for mobility in soil is slight (Koc between 2000 and 5000).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Partition coefficient (Koc): 2120

Copper stabilizer

No relevant data found.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations. (See 40 CFR 268)

Contaminated packaging: Empty containers retain product residues. Follow label warnings even after container is emptied. Improper disposal or reuse of this container may be dangerous and illegal. Refer to applicable federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT

Proper shipping name	Corrosive liquids, toxic, n.o.s.(4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one, C10-16-Alkylbenzene sulfonic acid)
UN number	UN 2922
Class	8 (6.1)
Packing group	II

Classification for SEA transport (IMO-IMDG):

Proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S.(4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one, C10-16-Alkylbenzene sulfonic acid)
UN number	UN 2922
Class	8 (6.1)
Packing group	II
Marine pollutant	4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Proper shipping name	Corrosive liquid, toxic, n.o.s.(4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one, C10-16-Alkylbenzene sulfonic acid)
UN number	UN 2922
Class	8 (6.1)
Packing group	II

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

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitisation

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313
The following components are subject to reporting levels established by SARA Title III, Section 313:

Components	**CASRN**
Copper hydroxide	20427-59-2

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103
This material does not contain any components with a CERCLA RQ.

Pennsylvania
Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

California Prop. 65
WARNING: This product can expose you to chemicals including Methanol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

United States TSCA Inventory (TSCA)
This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

Federal Insecticide, Fungicide and Rodenticide Act
EPA Registration Number: 707-262
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER

Corrosive
Causes irreversible eye damage and skin burns
May cause allergic skin reaction
Harmful if swallowed
May be fatal if inhaled
May be fatal if absorbed through skin
This product is a dermal sensitizer.
This product is toxic to fish and aquatic invertebrates.

16. OTHER INFORMATION

Hazard Rating System
HMIS

Health	Flammability	Physical Hazard
3*	1	0

* = Chronic Effects (See Hazards Identification)

Revision
Identification Number: 10040678 / A746 / Issue Date: 12/15/2020 / Version: 6.5
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

Dow IHG	Dow Industrial Hygiene Guideline
STEL	Short term exposure limit
TWA	8-hr TWA
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

Full text of other abbreviations
AIIC - Australian Inventory of Industrial Chemicals; 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.

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