

## SAFETY DATA SHEET

JW197QF 33-9675 INT 600 BRITEBOND SOFT NICKEL

### Section 1. Identification

**Product identifier** : JW197QF 33-9675 INT 600 BRITEBOND SOFT NICKEL  
**SDS code** : 8133618  
 JW197QF/25KG

#### Relevant identified uses of the substance or mixture and uses advised against

Recommended use
Industrial use
Restrictions on use
All other uses

**Product use** : Electrostatic coating for use in industrial plants

#### Supplier's details

Akzo Nobel Coatings Inc.  
 150 Columbia Street  
 Reading, PA 19601 USA

1-610-372-3600

Akzo Nobel Coatings Ltd.  
 110 Woodbine Downs Blvd.  
 Unit #4 Etobicoke, Ontario  
 Canada M9W 5S6

**Emergency telephone number (with hours of operation)** : CHEMTREC +1 (800) 424-9300 (Inside the US)  
 CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)  
 24 hours

### Section 2. Hazard identification

**Classification of the substance or mixture** : COMBUSTIBLE DUSTS - Category 1  
 ACUTE TOXICITY (oral) - Category 4  
 SERIOUS EYE DAMAGE - Category 1  
 SKIN SENSITIZATION - Category 1  
 GERM CELL MUTAGENICITY - Category 1  
 CARCINOGENICITY - Category 1  
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

#### GHS label elements

**Hazard pictograms** :



**Signal word** :

Danger

**Hazard statements** :

Harmful if swallowed.  
 May cause an allergic skin reaction.  
 Causes serious eye damage.  
 May cause genetic defects.  
 May cause cancer.  
 May cause damage to organs through prolonged or repeated exposure.  
 May form combustible dust concentrations in air.

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## Section 2. Hazard identification

### Precautionary statements

- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
- Response** : If exposed or concerned: Get medical advice or attention. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. 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 doctor.
- Storage** : Store locked up.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

Ingredient name	% (w/w)	CAS number
3,5-bis(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	≥5 - ≤10	2451-62-9
copper	≥1 - ≤5	7440-50-8
Crystalline Silica as quartz not respirable, >10µm	≥0.1 - ≤1	14808-60-7

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** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.

## Section 4. First-aid measures

- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### **Most important symptoms/effects, acute and delayed**

#### **Potential acute health effects**

- Eye contact** : Causes serious eye damage.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

#### **Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### **Indication of immediate medical attention and special treatment needed, if necessary**

- Notes to physician** : 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** : No specific treatment.
- Protection of first-aiders** : 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical powder.
- Unsuitable extinguishing media** : Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

- Specific hazards arising from the chemical** : May form explosible dust-air mixture if dispersed.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
metal oxide/oxides

- 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- 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.

## 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- 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** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

- Large spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. 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 a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> 8 hrs OEL: 0.05 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 3/2022).</b> [1,3,5-Triglycidyl-s-triazinetrione] <b>Skin sensitizer.</b> TWA: 0.05 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b> [1,3,5-Triglycidyl-s-triazinetrione] TWA: 0.05 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 6/2021).</b> [Triglycidyl isocyanurate] TWA<sub>EV</sub>: 0.05 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 0.15 mg/m<sup>3</sup> 15 minutes. TWA: 0.05 mg/m<sup>3</sup> 8 hours.</p>
copper	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> [Copper] <b>Notes: as Cu</b> 8 hrs OEL: 1 mg/m<sup>3</sup>, (as Cu) 8 hours. Form: Dusts and Mists</p>

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## Section 8. Exposure controls/personal protection

Crystalline Silica as quartz not respirable, >10µm

8 hrs OEL: 0.2 mg/m<sup>3</sup>, (as Cu) 8 hours.  
 Form: Fume  
**CA British Columbia Provincial (Canada, 3/2022). [Copper] Notes: as Cu**  
 TWA: 1 mg/m<sup>3</sup>, (as Cu) 8 hours. Form: Dusts and mists  
 TWA: 0.2 mg/m<sup>3</sup>, (as Cu) 8 hours. Form: Fume  
**CA Ontario Provincial (Canada, 6/2019).**  
 TWA: 0.2 mg/m<sup>3</sup>, (as Cu) 8 hours. Form: Fume  
 TWA: 1 mg/m<sup>3</sup>, (as Cu) 8 hours. Form: dust and mists  
**CA Saskatchewan Provincial (Canada, 7/2013).**  
 STEL: 0.6 mg/m<sup>3</sup>, (measured as Cu) 15 minutes. Form: Fume  
 TWA: 0.2 mg/m<sup>3</sup>, (measured as Cu) 8 hours. Form: Fume  
 STEL: 3 mg/m<sup>3</sup>, (measured as Cu) 15 minutes. Form: dust and mist  
 TWA: 1 mg/m<sup>3</sup>, (measured as Cu) 8 hours. Form: dust and mist  
**CA Quebec Provincial (Canada, 6/2021). [Copper , dusts & mists] Notes: as Cu**  
 TWAEV: 1 mg/m<sup>3</sup>, (as Cu) 8 hours. Form: dusts & mists  
**CA Quebec Provincial (Canada, 6/2021). [Copper, fume] Notes: as Cu**  
 TWAEV: 0.2 mg/m<sup>3</sup>, (as Cu) 8 hours. Form: fume  
  
**CA British Columbia Provincial (Canada, 6/2017).**  
 TWA: 0.025 mg/m<sup>3</sup> 8 hours. Form: Respirable  
**CA Quebec Provincial (Canada, 1/2014).**  
 TWAEV: 0.1 mg/m<sup>3</sup> 8 hours. Form: Respirable dust.  
**CA Ontario Provincial (Canada, 1/2018).**  
 TWA: 0.1 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction.  
**CA Alberta Provincial (Canada, 4/2009).**  
 8 hrs OEL: 0.025 mg/m<sup>3</sup> 8 hours. Form: Respirable particulate  
**CA Saskatchewan Provincial (Canada, 7/2013).**  
 TWA: 0.05 mg/m<sup>3</sup> 8 hours. Form: respirable fraction

### Appropriate engineering controls

: Use only with adequate ventilation. 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### 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.

## Section 8. Exposure controls/personal protection

### Individual protection measures

- Hygiene measures** : 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. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- 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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- 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** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

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

### Appearance


- Physical state** : Solid. [Powder.]
- Color** : Metallic.
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : Not applicable. [DIN EN 1262]
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: Not applicable. [Pensky-Martens]
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : 20 - 70 g/m<sup>3</sup>
- Vapor pressure** : Not available.
- Relative vapor density** : Not applicable.
- Relative density** : 1.2 to 1.9 [ISO 8130-2/-3]
- Solubility(ies)** :

## Section 9. Physical and chemical properties

Media	Result
cold water	Not soluble [OESO (TG 105)]

- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : 450 to 600°C (842 to 1112°F)
- Decomposition temperature** : Not available.
- Minimum ignition energy (mJ)** : 5 to 20
- Viscosity** : Kinematic (room temperature): Not applicable. [DIN EN ISO 3219]  
Kinematic (40°C (104°F)): Not applicable. [DIN EN ISO 3219]

### Particle characteristics

- Median particle size** : Not available.
- Percentage of particles with aerodynamic diameter ≤ 10 µm** : 

## 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 the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
- Incompatible materials** : Reactive or incompatible with the following materials:  
oxidizing materials
- 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	Result	Species	Dose	Exposure
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	LC50 Inhalation Dusts and mists	Mouse	2000 mg/m <sup>3</sup>	4 hours
	LC50 Inhalation Dusts and mists	Rat	650 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	188 mg/kg	-
	LD50 Oral	Rat	222 mg/kg	-
	LD50 Oral	Rat	138 mg/kg	-
	LD50 Intraperitoneal	Mouse	0.07 mg/kg	-
	LD50 Oral	Mouse	>5000 mg/kg	-
copper	LD50 Oral	Mouse	413 mg/kg	-

#### Irritation/Corrosion

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## Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	Eyes - Severe irritant	Rabbit	-	100 mg	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	IARC	NTP	ACGIH
Copper	-	Known to be a human carcinogen.	-
Crystalline Silica as quartz not respirable, >10µm	1	Known to be a human carcinogen.	A2

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	Category 2	-	-

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye damage.

**Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

**Skin contact** : May cause an allergic skin reaction.

**Ingestion** : Harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

## Section 11. Toxicological information

- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### 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

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : May cause genetic defects.
- Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
P5/JW 197QF/USA 33-9675 BRTBND SFT NCK/BA	1553.3	N/A	N/A	N/A	8.6
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	100	N/A	N/A	N/A	0.5
copper	500	N/A	N/A	N/A	N/A

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
copper	Acute EC50 18 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Acute EC50 18 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 1100 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 1.6 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 1.6 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 1.6 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours

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## Section 12. Ecological information

Acute EC50 1 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
Acute EC50 3.2 µg/l Fresh water	Daphnia - Daphnia galeata - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
Acute EC50 3.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
Acute EC50 2.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
Acute EC50 2.5 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
Acute LC50 0.072 µg/l Marine water	Crustaceans - Amphipoda - Adult	48 hours
Acute LC50 3.1 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
Acute LC50 16 µg/l Fresh water	Fish - Osteichthyes - Adult	96 hours
Acute LC50 8.7 µg/l Fresh water	Fish - Osteichthyes - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Acute LC50 7.56 µg/l Marine water	Fish - Periophthalmus waltoni - Adult	96 hours
Acute LC50 10.3 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Acute LC50 9.4 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Chronic NOEC 3 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
Chronic NOEC 2.5 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
Chronic NOEC 3.2 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
Chronic NOEC 0.013 mg/l Marine water	Algae - Ulva pertusa	96 hours
Chronic NOEC 7 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
Chronic NOEC 0.02 mg/l Fresh water	Crustaceans - Cambarus bartonii - Mature	21 days
Chronic NOEC 29.4 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	21 days
Chronic NOEC 2 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Chronic NOEC 15 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Chronic NOEC 5 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	21 days
Chronic NOEC 5 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	21 days
Chronic NOEC 1.7 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks
Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
Chronic NOEC 1.2 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks

## Section 12. Ecological information

Weanling)

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	-0.8	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.







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

## Section 13. Disposal considerations

**Disposal methods** : 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

The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

	TDG Classification	IMDG	IATA
UN number	UN3077	UN3077	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper)
Transport hazard class(es)	9  	9  	9  
Packing group	III	III	III
Environmental hazards	Yes.	Marine Pollutant(s): copper	Yes.

### Additional information

Date of issue/Date of revision : 6/6/2023

Version : 2

Date of previous issue : 2/6/2023

12/14

## Section 14. Transport information

- TDG Classification** : 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). Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.
- IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
- Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. 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** : Not available.

## Section 15. Regulatory information

### Canadian lists

- Canadian NPRI** : The following components are listed: copper (and its compounds)
- CEPA Toxic substances** : None of the components are listed.

### Inventory list

- Canada** : At least one component is not listed.
- United States** : Not determined.

## Section 16. Other information

### History

- Date of printing** : 6 June 2023
- Date of issue/ Date of revision** : 6 June 2023
- Date of previous issue** : 6 February 2023
- Version** : 2
- Unique ID** :

- Key to abbreviations** :
- ATE = Acute Toxicity Estimate
  - BCF = Bioconcentration Factor
  - 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
  - SGG = Segregation Group
  - UN = United Nations

### Procedure used to derive the classification

## Section 16. Other information

Classification	Justification
COMBUSTIBLE DUSTS - Category 1	On basis of test data
ACUTE TOXICITY (oral) - Category 4	Calculation method
SERIOUS EYE DAMAGE - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
GERM CELL MUTAGENICITY - Category 1	Calculation method
CARCINOGENICITY - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

✔ Indicates information that has changed from previously issued version.

### Notice to reader

#### FOR PROFESSIONAL USE ONLY

**IMPORTANT NOTE** The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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