

# SAFETY DATA SHEET

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## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

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**CAS Number:** 7758-99-8  
**Product Name:** Copper sulphate Pentahydrate  
**Revision Date:** Jan 23, 2018 **Date Printed:** Mar 28, 2018  
**Version:** 2.0 **Supersedes Date:** Oct 23, 2017  
**Manufacturer's Name:** Thames River Chemical Corp.  
**Address:** 5230 Harvester Road Burlington, ON, CA, L7L 4X4  
**Emergency Phone:** CHEMTREC (800) 424-9300  
**Information Phone Number:** 905-681-5353  
**Fax:** 905-681-5377  
**Product/Recommended Uses:** Feed additive and diet supplement

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## SECTION 2) HAZARDS IDENTIFICATION

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### Classification

Acute aquatic toxicity - Category 1  
Acute toxicity Oral - Category 4  
Chronic aquatic toxicity - Category 1  
Eye Irritation - Category 2A  
Skin Irritation - Category 2

### Pictograms



### Signal Word

Warning

### Hazard Statements - Health

Harmful if swallowed  
Causes serious eye irritation  
Causes skin irritation

### Hazard Statements - Environmental

Very toxic to aquatic life  
Very toxic to aquatic life with long lasting effects

### Precautionary Statements - General

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.

### Precautionary Statements - Prevention

Avoid release to the environment.  
Wash thoroughly/Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.

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

### Precautionary Statements - Response

Collect spillage.

IF SWALLOWED: Call a POISON CENTER or doctor, if you feel unwell.

Rinse mouth.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water and soap.

Specific treatment (see first-aid on the SDS).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing. And wash it before reuse.

### Precautionary Statements - Storage

No precautionary statement available.

### Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/national/international regulation. Waste management should be in full compliance with national, regional and local laws.

### Physical Hazards Not Otherwise Classified

No Data Available

### Health Hazards Not Otherwise Classified

No Data Available

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## SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

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CAS	Chemical Name	% By Weight
0007758-99-8	COPPER SULFATE, PENTAHYDRATE	100%

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## SECTION 4) FIRST-AID MEASURES

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### Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

### Eye Contact

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes or until medical aid is available. If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 5 minutes, while holding the eyelids open.

### Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse/wash with lukewarm, gently flowing water and mild soap for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention. Wash contaminated clothing before re-use or discard.

### Ingestion

Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position. Get medical advice/attention.

### Most Important Symptoms and Effects, Both Acute and Delayed

No Data Available

### Indication of Any Immediate Medical Attention and Special Treatment Needed

No Data Available

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## SECTION 5) FIRE-FIGHTING MEASURES

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### **Suitable Extinguishing Media**

Small Fire : Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire: Water spray, fog or alcohol-resistant foam.

### **Unsuitable Extinguishing Media**

Do not use straight stream of water.

### **Specific Hazards in Case of Fire**

Fire will produce irritating gases.

### **Fire-fighting Procedures**

Isolate immediate hazard area and keep unauthorized personnel out. Move undamaged containers from immediate hazard area if it can be done safely.

### **Special Protective Actions**

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

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## **SECTION 6) ACCIDENTAL RELEASE MEASURES**

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### **Emergency Procedure**

Isolate hazard area and keep unauthorized personnel away. Stay uphill and/or upstream. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Ventilate closed spaces before entering.

### **Recommended Equipment**

Wear chemical protective clothing.

### **Personal Precautions**

Avoid breathing vapor or mist. Avoid contact with skin, eye or clothing.

### **Environmental Precautions**

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Dike far ahead of liquid spill for later disposal.

### **Methods and Materials for Containment and Cleaning up**

Avoid dust formation. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container. Cover the product with sand or soil and carefully clean up all the product. Put it into another clean and dry container, close and remove it from the area. Do not clean contaminated area with water.

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## **SECTION 7) HANDLING AND STORAGE**

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### **General**

Avoid dust formation. Do not breathe dust. Handle in a well ventilated area or wear adequate respiratory protection (anti-dust mask).

Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Eyewash stations and showers should be available in areas where this material is used and stored. All containers must be properly labelled.

### **Ventilation Requirements**

Use only with adequate ventilation to control air contaminants to their exposure limits.

### **Storage Room Requirements**

Store in dry, cool areas, out of direct sunlight and away from other sources of heat. Empty container retain residue and may be dangerous.

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## **SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION**

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### **Eye protection**

Wear indirect-vent, impact and splash resistant goggles when working with liquids

### Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

### Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	CANsmg	CANspm	CANtmg	CANtppm	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m3)
No applicable chemical	-	-	-	-	-	-	-	-	-	-	-	-

Chemical Name	ACGIH STEL (ppm)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH TLV Basis	ACGIH Carcinogen	ACGIH Notations
No applicable chemical	-	-	-	-	-	-

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## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

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### Physical and Chemical Properties

Density	19.06 lb/gal
Specific Gravity	2.28
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Appearance	blue crystals or crystalline powder
Odor Description	Odourless
Odor Threshold	N/A
pH	4
Melting Point	not measurable – decomposes without melting
Low Boiling Point	not measurable – decomposes without boiling
High Boiling Point	N/A
Flash Point	N/A - cannot burn
Vapor Pressure	7.3 mmHg
Vapor Density	does not form a vapour (5.5 = theoretical value)
Evaporation Rate	not volatile
Upper Explosion Level	N/A
Lower Explosion Level	N/A
Water Solubility	220 g/L
Coefficient Water/Oil	N/A - solid material
Viscosity	N/A - solid material

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## SECTION 10) STABILITY AND REACTIVITY

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### Reactivity

The product is stable at normal handling- and storage conditions.

**Stability**

Stable under normal storage and handling conditions.

**Conditions to Avoid**

Avoid accumulation of dust and spillage to enter drains or water courses.

Avoid heat, sparks, flame, high temperature, freezing and contact with incompatible materials.

**Hazardous Reactions/Polymerization**

Hazardous polymerization will not occur.

**Incompatible Materials**

Incompatible with finely powdered metals, steel, nitromethane, hydrazine, hydroxyl amine and magnesium

Strong bases, acids, oxidizing and reducing agents.

**Hazardous Decomposition Products**

Oxides of copper. Oxides of sulfur

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**SECTION 11) TOXICOLOGICAL INFORMATION**

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**Likely Route of Exposure**

Inhalation, ingestion, skin absorption

**Acute Toxicity**

Harmful if swallowed

**Aspiration Hazard**

No Data Available

**Carcinogenicity**

No Data Available

**Germ Cell Mutagenicity**

No Data Available

**Reproductive Toxicity**

No Data Available

**Respiratory/Skin Sensitization**

No Data Available

**Serious Eye Damage/Irritation**

Causes serious eye irritation

**Skin Corrosion/Irritation**

Causes skin irritation

**Specific Target Organ Toxicity - Repeated Exposure**

No Data Available

**Specific Target Organ Toxicity - Single Exposure**

No Data Available

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**SECTION 12) ECOLOGICAL INFORMATION**

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**Toxicity**

LC 50/96 hour values for Fish < 1 mg/l

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

#### **Mobility in Soil**

In soil, material will leach into the groundwater

#### **Bio-accumulative Potential**

Bio accumulation may occur along the food chain.

#### **Persistence and Degradability**

When released into soil or water, material is not expected to be Biodegrade

#### **Other Adverse Effects**

No Data Available

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## **SECTION 13) DISPOSAL CONSIDERATIONS**

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### **Waste Disposal**

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

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## **SECTION 14) TRANSPORT INFORMATION**

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### **Transport Canada Information**

UN number: UN-3077

Proper shipping name: environmentally hazardous substance, liquid, N.O.S. (copper sulphate)

Hazard class: 9

Packaging group: III

### **U.S. DOT Information**

UN number: UN-3077

Proper shipping name: environmentally hazardous substance, liquid, N.O.S. (copper sulphate)

Hazard class: 9

Packaging group: III

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## **SECTION 15) REGULATORY INFORMATION**

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CAS	Chemical Name	% By Weight	Regulation List
0007758-99-8	COPPER SULFATE, PENTAHYDRATE	100%	EU_EC_Inventory - EC Inventory

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## **SECTION 16) OTHER INFORMATION**

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### **Glossary**

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANspmm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANtppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent

Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

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