SAFETY DATA SHEET (SDS)

TROY CORPORATION
8 Vreeland Road
Florham Park, NJ 07932
USA

FOR SDS INFORMATION: 1-973-589-2500 (USA)
CHEMTRAC 1-703-527-3887 (USA)

24 HOUR EMERGENCY PHONE NUMBER

TroyCare™BC04
Manufacterer
Troy Chemical Corporation
1 Avenue L
Newark, N.J. 07105

PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME
TroyCare™BC04

CHEMICAL NAME
Not applicable

CHEMICAL FAMILY
Not applicable

FORMULA
Proprietary

SYNONYMS
None

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

TroyCare™BC04 is a clear pale yellow liquid with a mild odor. Corrosive liquid. May cause severe eye irritation and irreversible corneal damage. May cause severe skin irritation and burns. May cause allergic skin reactions. Skin effects may be delayed for hours. May be harmful if swallowed. May cause respiratory irritation. This material is toxic to fish. Avoid contamination of streams and sewers.

OSHA REGULATORY STATUS

This material is classified as hazardous under OSHA regulations.

POTENTIAL HEALTH EFFECTS

INGESTION
Ingestion may be harmful.

SKIN
May cause severe skin irritation and burns. Skin irritation effects may be delayed for hours. This product is a skin sensitizer.

EYE CONTACT
May cause severe eye irritation and irreversible corneal damage if not washed from eyes promptly.

CHRONIC EFFECTS
There are no known chronic effects.

TARGET ORGANS
Immune system (sensitizer)

CARCINOGENICITY
This product (or component) is not listed as a carcinogen according to OSHA, NTP, IARC, and ACGIH.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

There are no known conditions aggravated by exposure to this product.

POTENTIAL ENVIRONMENTAL EFFECTS

This product is toxic to fish and may cause adverse environmental impact. See Section 12 for additional information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The listed components are considered to be hazardous based on OSHA's Hazard Communication Standard. For further regulatory information, see Section 15.

CHEMICAL NAME

CAS#    %    
Magnesium nitrate 10377-60-3 21-23.5
5-Chloro-2-methyl-4-isothiazolin-3-one 26172-55-4 **
2-Methyl-4-isothiazolin-3-one 2682-20-4 **

**The sum of the two components is 1.35-1.65%.

4. FIRST AID MEASURES

INGESTION
Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

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.

EYE CONTACT
Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing the eye. Call a poison control center or doctor for treatment advice.

INHALATION
Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN
Probability mucosal damage may contraindicate use of gastric lavage.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
This material may burn but does not ignite readily.

FIRE EXTINGUISHING MEDIA
Suitable extinguishing media - Extinguish using agent suitable for surrounding fire.

UNFITTING MEDIA
Not applicable

PROTECTION OF FIREFIGHTERS
Specific hazards arising from the chemical:

Thermal decomposition may release the following hazardous substances

Nitrogen oxides, hydrogen chloride, and sulfur oxides.

Contact may cause burns to eyes. Runoff from fire control or dilution water may cause pollution.

Protective equipment and precautions for firefighters:

Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Avoid breathing vapors, keep upwind. Positive pressure self-contained breathing apparatus with full facepiece and structural firefighters’ protective clothing will provide limited protection.

6. ACCIDENTAL RELEASE MEASURES

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Wear protective equipment as specified in Section 8. Positive pressure self-contained breathing apparatus and structural firefighters' protective clothing will provide limited protection. Shut off ignition sources; no flames, smoking, or flames in hazard area. Stop leak if you can do it without risk. For small spills, absorb with vermiculite or other noncombustible absorbent material and place into containers for later disposal. For large spills, dike far ahead of liquid spill for later disposal. If water pollution occurs, notify the appropriate authorities.

Observe all Federal, State, and Local regulations regarding notifications of accidental releases.

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**24 HOUR EMERGENCY PHONE NUMBER**  
CHEMTREC 1-703-527-3887 (USA)

**TroyCare™BC04**  
**Product Code:** 20270  
**Effective Date:** December 20, 2013  
**Replaces:** February 11, 2013

## 7. HANDLING & STORAGE

Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Keep container tightly closed. Use only with adequate ventilation. Store away from incompatible substances in a cool, dry, ventilated area. Do not contaminate water, food, or feed by storage or disposal.

Observe all Federal, State, and Local regulations when storing or disposing of this substance.

## 8. PERSONAL PROTECTION/EXPOSURE CONTROLS

### EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>Substance</th>
<th>Supplier's recommendation: TWA:</th>
<th>STEL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Chloro-2-methyl-4-isothiazolin-3-one</td>
<td>0.076 mg/m3, STEL: 0.23 mg/m3</td>
<td></td>
</tr>
<tr>
<td>2-Methyl-4-isothiazolin-3-one</td>
<td>1.5 mg/m3, STEL: 4.5 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

### VENTILATION

Provide adequate ventilation or local exhaust to meet established exposure limits.

### EYE/FACE PROTECTION

If potential for contact with liquid or vapor exists, use splash-proof safety goggles and a faceshield or other approved eye protection.

### SKIN PROTECTION

Wear impervious gloves and a apron to prevent skin contact. Wear impermeable suit if exposure is possible to a large portion of the body.

### RESPIRATORY PROTECTION

A respiratory protection program meeting OSHA 1910.134 must be followed whenever workplace conditions warrant the use of a respirator. If exposure may exceed recommended limits, a NIOSH/MSHA-approved respirator should be used based on exposure levels found in the workplace.

### OTHER

Eyeswash and safety shower should be available within the immediate area for emergency use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Clear pale yellow liquid

### SPECIFIC GRAVITY AT 22°C (Water=1)

1.15-1.22

### WATER SOLUBILITY

Miscible

### pH

1.7-3.7

### AUTOIGNITION TEMPERATURE

Not applicable

### MELTING/FREEZING POINT

0°C (32°F)

### DECOMPOSITION TEMPERATURE

Not determined

### INITIAL BOILING POINT

100°C (212°F)

### VISCOSITY (Gardner)

At 20°C.

### Not determined

### % VOLATILES BY WEIGHT

95% (typ)

### Setaflash Closed cup

Not applicable

### VAPOUR PRESSURE AT 20°C.

Not determined

### EVAPORATION RATE (Butyl acetate=1)

<1

### VAPOR DENSITY (Air=1)

Not determined

### FLAMMABLE LIMITS

Not applicable

## 10. STABILITY & REACTIVITY

### REACTIVITY

Stable under normal temperatures and pressures.

### CONDITIONS TO AVOID

Avoid heat or sources of ignition.

### INCOMPATIBILITY

Avoid oxidizing or reducing agents, amines, and mercaptans.

### HAZARDOUS DECOMPOSITION

Decomposition may release nitrogen oxides, hydrogen chloride, and sulfur oxides.

### HAZARDOUS POLYMIZATION

Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE ORAL EFFECTS

LD50 (oral, rat) - 3522 mg/kg.

### ACUTE SKIN EFFECTS

LD50 (dermal, rabbit) >2000 mg/kg. Severe irritant and corrosive. This product is a skin sensitizer.

### ACUTE EYE EFFECTS

Severe eye irritant, corrosive

### ACUTE INHALATION EFFECTS

LC50 (rat,4 hr) - 490 mg/m3.

### SUBCHRONIC EFFECTS AND OTHER STUDIES

No data available

For additional information, contact Troy Corporation.

## 12. ECOLOGICAL INFORMATION

### ECOTOXICITY

This product is toxic to fish. Do not apply directly to water or wetlands. Do not contaminate water when disposing of equipment washwaters.

Data on 5-chloro-2-methyl-4-isothiazolin-3-one/2-methyl-4-isothiazolin-3-one, is as follows:

- LC50 (bluegill sunfish, 96 hr flow-through) - 280 µg/L.
- LC50 (rainbow trout, 96 hr flow-through) - 190 µg/L.
- EC50 (daphnia magna, 48 hr) - 160 µg/L.

### ENVIRONMENTAL FATE

This product may cause adverse environmental impact.

Data on 5-chloro-2-methyl-4-isothiazolin-3-one/2-methyl-4-isothiazolin-3-one, is as follows:

- Octanol/water partition coefficient: LogP_{ow} = 0.401
- Biodegradation (aerobic metabolism): 1/2 aerobic - 4.8 hr.
- Biodegradation (anaerobic metabolism): 1/2 anaerobic - 17.3 hr.

## 13. DISPOSAL INFORMATION

### RCRA HAZARDOUS WASTE

This product is not a RCRA hazardous waste by definition.

### WASTE DISPOSAL PROCEDURE

The user of this material has the responsibility to dispose of unused material, residues, and containers in compliance with all Federal, State, and Local Regulations.
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14. TRANSPORTATION INFORMATION

DOT
SHIPPING NAME
UN3265, Corrosive liquid, acidic, organic, n.o.s. (contains: isothiazolinones), 8, PG III, Marine pollutant, ERG# 153

LABELS REQUIRED
Corrosive, Marine Pollutant

Note: While this product is considered a Marine Pollutant according to IMDG regulations, it is not a Marine Pollutant when transported in non-bulk containers as per DOT (49CFR 171.4(c))

IATA
SHIPPING NAME
UN3265, Corrosive liquid, acidic, organic, n.o.s. (contains: isothiazolinones), 8, PG III, ERG# 8L

LABELS REQUIRED
Corrosive, (Environmentally Hazardous - contents greater 5 L)

IMDG
SHIPPING NAME
UN3265, Corrosive liquid, acidic, organic, n.o.s. (contains: isothiazolinones), 8, PG III, Marine pollutant, EMS# F-A, S-B

LABELS REQUIRED
Corrosive, Marine Pollutant

15. REGULATORY INFORMATION

CERCLA SECTION 103 (40CFR302.4)
This product does not contain any chemicals that are reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

SARA SECTION 302 (40CFR355.30), SARA SECTION 304 (40CFR355.40)
This product does not contain any chemicals that require emergency planning based on Threshold Planning Quantities (TPQ) or release reporting based on Reportable Quantities (RQ).

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21)

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrate compound</td>
<td>Not applicable</td>
<td>21-23.5</td>
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</table>

CHEMICAL INVENTORIES

The ingredients of this product are all on the following Chemical Substance Inventories, are exempt from the Inventories, or are otherwise compliant with inventory requirements of the governing agency.

<table>
<thead>
<tr>
<th>TSCA</th>
<th>EINECS</th>
<th>DSL</th>
<th>AICS</th>
<th>ECL</th>
<th>MITLENCs</th>
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<tr>
<th>CALIFORNIA PROPOSITION 65</th>
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<tr>
<td>This product does not contain any substances that are currently on the list of Known Carcinogens and Reproductive Toxins, at levels which would require a warning under the statute.</td>
</tr>
</tbody>
</table>

STATE RIGHT-TO-KNOW

For additional information on components that require listing for compliance with State Right-to-Know regulations, contact Troy Corporation.

16. OTHER

REVISIONS
Prepared by: Environmental and Regulatory Affairs Dept.

This SDS has been revised in the following sections: (revisions indicated in left border)

Sec. 2 (Emergency Overview), Sect. 9 (Physical data)

ABBREVIATIONS

<p>| PNOC - Particulates not otherwise classified | PNOR - Particulates not otherwise regulated |</p>
<table>
<thead>
<tr>
<th>STEL - Short-term exposure limit</th>
<th>TLV - Threshold limit value</th>
<th>TWA - Time-weighted average</th>
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<tr>
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HMIS RATING

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<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>REACTIVITY</th>
<th>PERSONAL PROTECTION</th>
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