1. PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME: Mergal® 758
MANUFACTURER: Troy Chemical Corporation
CHEMICAL NAME: Not applicable
CHEMICAL FAMILY: Not applicable
FORMULA: Proprietary
SYNONYMS: None

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Mergal® 758 is an off-white to white-brownish dispersion with a characteristic odor. Corrosive liquid. Signal word - DANGER. May cause severe eye irritation and irreversible corneal damage. May cause severe skin irritation and burns. May be harmful if swallowed. May cause respiratory irritation. Toxic to fish.

OSHA REGULATORY STATUS
This material is classified as hazardous under OSHA regulations.

POTENTIAL HEALTH EFFECTS

ACUTE EFFECTS
INGESTION: May be harmful if swallowed.
SKIN: May cause severe skin irritation and burns. This product is a skin sensitizer.
EYE CONTACT: May cause severe eye irritation and irreversible corneal damage if not washed from eyes promptly.
INHALATION: May cause respiratory irritation.
CHRONIC EFFECTS: Repeated or prolonged skin contact may cause dermatitis, chemical burns, and skin sensitization.
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.

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS#</th>
<th>%</th>
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<tbody>
<tr>
<td>1,2-Benzenisol-h-3-one</td>
<td>2634-33-5</td>
<td>7-13</td>
</tr>
<tr>
<td>5-Chloro-2-methyl-4-isothiazolin-3-one</td>
<td>26172-55-4</td>
<td>**</td>
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<tr>
<td>2-Methyl-4-isothiazolin-3-one</td>
<td>2682-20-4</td>
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</table>

**The sum of the two components is <1%**

4. FIRST AID MEASURES

INGESTION: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
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. 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: Probable mucosal damage may contraindicate use of gastric lavage following ingestion. Measures against circulatory shock, respiratory depression and convulsion may be needed.

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.
Unsuitable extinguishing media - Not applicable

PROTECTION OF FIREFIGHTERS:
Specific hazards arising from the chemical:
Thermal decomposition may release the following hazardous substances:
Carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides, and hydrogen chloride.
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 flares, 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.
7. HANDLING & STORAGE
Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Store in original container. Keep container tightly closed. Use only with adequate ventilation. Store away from incompatible substances in a cool, dry, ventilated area. Protect from freezing.

Store indoors at temperatures between 5-30°C (41-86°F). This product should be well-mixed before use. If the product has excessively chilled, propeller-agitate. 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
5-Chloro-2-methyl-4-isothiazolin-3-one Supplier's recommendation: TWA: 0.076 mg/m3, STEL: 0.23 mg/m3 2-Methyl-4-isothiazolin-3-one Supplier's recommendation: TWA: 1.5 mg/m3, STEL: 4.5 mg/m3

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

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

SKIN PROTECTION
Incompatible with many strong oxidizing and reducing agents, amines, and mercaptans.

SKIN PROTECTION
Provide adequate ventilation, local exhaust, or general exhaust. Use splash-proof safety goggles and a face shield or other approved eye protection.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
Off-white to white brownish dispersion

SPECIFIC GRAVITY AT 25°C (Water=1) 1.04-1.08

WATER SOLUBILITY Miscible

ODOR
Characteristic odor

AUTOIGNITION TEMPERATURE Not applicable

DECOMPOSITION TEMPERATURE Not determined

MELTING/FREEZING POINT
0°C (32°F)

VISCOSITY (Brookfield LV) AT 25°C

INITIAL BOILING POINT
100°C (212°F)

spindle #5, 10 rpm 1000-4000 cps

FLASH POINT (ASTM D3278-96)
(SETAFLASH Closed cup) Not applicable

% VOLATILES BY WEIGHT 87%

EVAPORATION RATE (Butyl acetate=1) <1

VAPOR PRESSURE AT 20°C Negligible

FLAMMABLE LIMITS Not applicable

FLAMMABLE LIMITS >1

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 carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides, and hydrogen chloride.

HAZARDOUS POLYMERIZATION
Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS
LD50 (oral, rat-female) - 3129 mg/kg.

ACUTE SKIN EFFECTS
LD50 (dermal, rabbit) >5000 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) >2.11 mg/L.

SUBCHRONIC EFFECTS AND OTHER STUDIES
No data available

For additional information on active ingredients, contact Troy Chemical 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 the active ingredient, 1,2-Benzisothiazolin-3-one (BIT), is as follows:
LC50 (rainbow trout, 96 hr flow-through): 1.3-1.6 ppm
LC50 (water flea, 48 hr flow-through): 1.5-3.3 ppm
EC50 (algae, 72 hr static) - 0.37 mg/L.

Data on the active ingredient, 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 is a pesticide and may cause adverse environmental impact.

1,2-Benzisothiazolin-3-one (BIT) is hydrolytically stable (half-life=30 days), but breaks down fairly quickly in aerobic soils (half-life<24 hours in sandy loam soil). Its low Kow (20 at 25°C) indicates that it is unlikely to bioaccumulate in aquatic organisms.

Data on the active ingredient, 5-chloro-2-methyl-4-isothiazolin-3-one/2-methyl-4-isothiazolin-3-one, is as follows:
Octanol/water partition coefficient: LogPow = 0.401
Biodegradation (aquatic metabolism): t 1/2 anaerobic - 4.8 hr.
Biodegradation (aquatic metabolism): t 1/2 aerobic - 17.3 hr.
This product is a RCRA hazardous waste based on its pH meeting the definition of corrosivity.

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.

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).

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).

This product does not contain any chemicals subject to the reporting requirements of the Emergency Planning and Community Right-to-Know Act of 1986.

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.

- TSCA: X
- DSL: X
- AICS: X
- ECL: X
- MITI: X
- ENCS: X
- PICCS: X
- IECSC: X
- NZIoC: X
- China: X
- New Zealand: X

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.

This product is regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is exempt from State Right-to-Know labeling requirements when labeled with an approved EPA label.

EPA Registration No. 5383-137

16. OTHER

REVISIONS
Prepared by: Environmental and Regulatory Affairs Dept.
This MSDS has been revised in the following sections: (revisions indicated in left border)
Sec. 7 (Handling & Storage)

ABBREVIATIONS
PNOC - Particulates not otherwise classified
STEL - Short-term exposure limit
TLV - Threshold limit value
TWA - Time-weighted average
PNOR - Particulates not otherwise regulated

HMIS RATING

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>REACTIVITY</th>
<th>PERSONAL PROTECTION</th>
<th>ACUTE</th>
<th>CHRONIC</th>
<th>FIRE</th>
<th>REACTIVE</th>
<th>PRESSURE</th>
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