SAFETY DATA SHEET (SDS)

TROY CORPORATION
8 Vreeland Road
Florham Park, NJ 07932
USA

FOR SDS INFORMATION: 1-973-589-2500 (USA)
24 HOUR EMERGENCY PHONE NUMBER
CHEMTREC 1-703-527-3887 (USA)

TroyCare™ FE10
Product Code: 10273
Effective Date: January 17, 2014
Replaces: December 20, 2013

1. PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME TroyCare™ FE10
MANUFACTURER Troy Chemical Corporation
CHEMICAL NAME Not applicable
CHEMICAL FAMILY Not applicable
FORMULA Proprietary
SYNONYMS None

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
TroyCare™ FE10 is a clear to pale yellow liquid with a mild characteristic odor. May be harmful if swallowed. May cause severe eye irritation. May cause skin and respiratory irritation. May evolve iodine vapors during combustion. Very toxic to aquatic organisms.

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

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY Ingestion, skin contact, eyes, inhalation

ACUTE EFFECTS

INGESTION May be harmful if swallowed.
SKIN Repeated direct contact may cause moderate skin irritation.
EYE CONTACT Direct contact may cause severe eye irritation and possible corneal injury unless washed from eyes promptly.
INHALATION May cause respiratory irritation.

CHRONIC EFFECTS None

TARGET ORGANS Central nervous system, kidneys, liver
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 very toxic to aquatic organisms. 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# %
2-phenoxyethanol 122-99-6 90
3-iodo-2-propynyl butyl carbamate 55406-53-6 10

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. 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. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FIRE EXTINGUISHING MEDIA
Suitable extinguishing media - Dry chemical, carbon dioxide, water spray, or regular foam.
Unsuitable extinguishing media - Water jet

PROTECTION OF FIREFIGHTERS
Specific hazards arising from the chemical:
Thermal decomposition may release the following hazardous substances:
Carbon monoxide, carbon dioxide, iodine vapors.
Runoff from fire control or dilution water may cause pollution. May evolve vapors of iodine.

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 from spill area. Wear protective equipment as specified in Section 8. 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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7. HANDLING & STORAGE
Avoid contact with eyes, skin, 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. Store indoors at temperatures between 0-32°C (32-90°F). Product has a tendency to crystallize at low temperatures. 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
None established

VENTILATION
Provide adequate ventilation or local exhaust to minimize exposure.

EYE/FACE PROTECTION
If potential for contact with liquid exists, use splash-proof safety goggles or other approved eye protection.

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

RESPIRATORY PROTECTION
Whenever workplace conditions warrant the use of a respirator, a respiratory protection program meeting OSHA 1910.134 must be followed utilizing a NIOSH/MSHA-approved respirator.

OTHER
Eyewash should be available within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
Clear to pale yellow liquid

SPECIFIC GRAVITY AT 25°C. (Water=1) 1.15 (typ)

PH (1% aqueous solution) 7.0

WATER SOLUBILITY Partially soluble

ODOR Mild characteristic odor

AUTOIGNITION TEMPERATURE Not determined

DECOMPOSITION TEMPERATURE Not determined

MELTING/FREEZING POINT Not determined

VISCOSITY (Gardner) AT 25°C. Not determined

INITIAL BOILING POINT 245°C (473°F)

VAPOUR PRESSURE AT 20°C. 0.03 mm Hg

FLASH POINT (ASTM D3278-96) >110°C (>230°F)
(Setaflash Closed cup) (for 2-phenoxethanol)

% VOLATILES BY WEIGHT Not determined

EVAPORATION RATE (Butyl acetate=1) <1 (for 2-phenoxethanol)

FLAMMABLE LIMITS
1.4% - 9.0%

VAPOR DENSITY (Air=1) >1 (for 2-phenoxethanol)

10. STABILITY & REACTIVITY

STABILITY Stable under normal temperatures and pressures.

CONDITIONS TO AVOID Avoid excessive heat.

INCOMPATIBILITY Avoid contact with strong acids (pH <2), bases (pH >9), and oxidizing agents.

HAZARDOUS DECOMPOSITION Decomposition may release carbon monoxide, carbon dioxide, and iodine vapors.

HAZARDOUS POLYMERIZATION Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

No data is available on this product, however, toxicological data is included on the OSHA hazardous ingredients. For additional information, contact Troy Corporation:

ACUTE ORAL EFFECTS
IPBC: LD50 (oral, rat-female) - 1056 mg/kg.; LD50 (oral, rat-male) - 1795 mg/kg.
2-phenoxethanol: LD50 (oral, rat) - 1260 mg/kg.

ACUTE SKIN EFFECTS
IPBC: LD50 (dermal, rabbit) >2000 mg/kg., slight irritant.
2-phenoxethanol: LD50 (dermal, rat) - 14422 mg/kg.; LD50 (dermal, rabbit) - 5 mL/kg., moderate irritation

ACUTE EYE EFFECTS
IPBC: Severe irritation and corrosive (rabbit). The corrosion is completely reversible and the irritation is markedly reduced by the irritation of the eyes with water 20-30 seconds after exposure to test sample.
2-phenoxethanol: Severe eye irritation.

ACUTE INHALATION EFFECTS
IPBC: LC50 (rat,4 hr) - 680 mg/m3.

SUBCHRONIC EFFECTS AND OTHER STUDIES
2-phenoxethanol: Reproductive effects have been reported in animals.
For additional information on ingredients, contact Troy Corporation.

12. ECOLOGICAL INFORMATION

Ecotoxicological data is included on OSHA hazardous ingredients. For additional information, contact Troy Corporation:

ECOTOXICITY
This product is very toxic to aquatic organisms. Do not apply directly to water or wetlands. Do not contaminate water when disposing of equipment washwaters.

Data on 3-iodo-2-propynyl butyl carbamate (IPBC) is as follows:
LC50 (rainbow trout, 96 hr flow-through) - 67 μg/L.
EC50 (daphnia magna, 48 hr) - 0.16 mg/L.
EC50 (Scenedesmus subspicatus, 72 hr) - 22 μg/L.

Data on 2-phenoxethanol is as follows:
EC50 (fathead minnow, 96 hr) - 34.4 mg/L.

ENVIRONMENTAL FATE
The fate of IPBC is quite favorable. Degradation is rapid and occurs through biological as well as non-biological processes.
Classified as readily biodegradable. Low potential to bioaccumulate.
Octanol/water partition coefficient: LogPow = 2.81
COD: 1148 mg/g.
2-phenoxethanol is readily biodegradable.
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13. DISPOSAL INFORMATION
RCRA HAZARDOUS WASTE
WASTE DISPOSAL PROCEDURE
This product is not a RCRA hazardous waste by definition.
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.

14. TRANSPORTATION INFORMATION
DOT
SHIPPING NAME UN3082 Environmentally hazardous substance, liquid n.o.s. (contains: 3-iodo-2-propynyl butyl carbamate)
9, PG III, Marine Pollutant, ERG# 171
Class 9, Marine Pollutant

LABELS REQUIRED
Note: While this product is considered hazardous for transport according to IMDG and IATA regulations, it is not regulated when transported in non-bulk containers as per DOT (49CFR 171.4(c))

IATA
SHIPPING NAME UN3082, Environmentally hazardous substance, liquid n.o.s. (contains: 3-iodo-2-propynyl butyl carbamate)
9 PG III, ERG# 9L
Class 9, Environmentally Hazardous - contents greater 5 L

LABELS REQUIRED

IMDG
SHIPPING NAME UN3082, Environmentally hazardous substance, liquid n.o.s. (contains: 3-iodo-2-propynyl butyl carbamate)
9, PG III, Marine Pollutant, EMS# F-A, S-F
Class 9, Marine pollutant

LABELS REQUIRED

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
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)

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<th>ACUTE</th>
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<th>FIRE</th>
<th>REACTIVE</th>
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SARA SECTION 313 (40CFR372.65)
This product contains the following toxic chemicals subject to the reporting requirements of the Emergency Planning and Community Right-to-Know Act of 1986. This information must be included in all SDS's that are copied and distributed for this material.

CHEMICAL NAME
CAS# %
Glycol ether Not applicable 90
3-iodo-2-propynyl butyl carbamate 55406-53-6 10

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.

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<th>AICS</th>
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<td>China</td>
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CALIFORNIA PROPOSITION 65
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.

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. 9 (pH, Specific Gravity)

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

HMIS RATING
HEALTH FLAMMABILITY REACTIVITY PERSONAL PROTECTION
2 1 0 0 H
HEALTH FLAMMABILITY REACTIVITY
2 1 0

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