
MATERIAL SAFETY DATA SHEET

1. HAZARDS IDENTIFICATION

Emergency Overview

Colorless liquid. Sweet, pungent odor.

HEALTH HAZARD: CAUTION! MAY CAUSE EYE IRRITATION. In high concentrations, vapor

may cause irritation of the eyes, nose, and upper respiratory tract, and headache.

FIRE OR EXPLOSION: This product may burn but will not ignite readily.

SPILL PRECAUTIONS: Slippery, may cause falls if walked on.

Potential Health Effects

EYES:

Irritation may occur with exposure to vapors. The liquid is a moderate contact irritant. May cause corneal inflammation.

SKIN:

Repeated or prolonged contact can cause redness, irritation, and scaling of the skin (dermatitis). Normal care and personal hygiene should prevent skin effects.

INHALATION:

In high concentrations, vapor may cause irritation of the nose and throat, dizziness, and headache. Should not be a hazard at ambient temperatures.

INGESTION:

Low order of toxicity. No hazard by this route in normal use. Ingestion of large amounts may be irritating to the gastrointestinal tract.

(See Section 9 for Toxicological Information)

2. FIRST AID MEASURES

EYES:

Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention.

SKIN:

Remove contaminated clothing. Wash skin with soap and plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse.

INHALATION:

Remove to fresh air. If not breathing, give artificial respiration and seek medical attention immediately. Oxygen should only be administered by trained personnel.

INGESTION:

If swallowed, call a physician immediately. ONLY induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

3. FIRE FIGHTING MEASURES

Flammable Properties

FLASH POINT / METHOD:

265°F (129°C) / PM

AUTOIGNITION TEMPERATURE:

500°F (260°C)

FLAMMABLE LIMITS IN AIR % BY VOLUME:

LOWER: Approximately 0.6

UPPER: Approximately 4.0

FIRE AND EXPLOSION HAZARD:

None expected.

EXTINGUISHING MEDIA:

Water spray, fog or alcohol compatible foam is recommended.

FIRE FIGHTING INSTRUCTIONS:

Cool exposed equipment with water spray until well after fire is out. Self-contained breathing apparatus (SCBA) and structural firefighter's protective clothing will provide limited protection.

4. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Absorb spill with inert material, then place in a chemical waste container. For large spills, dike for later disposal. Avoid runoff to waterways and sewers. Dispose of according to local, state, and federal regulations.

SPILL PRECAUTIONS:

Slippery, may cause falls if walked on.

CERCLA HAZARDOUS SUBSTANCE:

Contains no chemicals on the CERCLA Hazardous Substance List.

5. HANDLING AND STORAGE

ELECTROSTATIC ACCUMULATION HAZARD:

Precautions should be taken to prevent electrostatic discharge.

USUAL SHIPPING CONTAINERS:

Tank cars, tank trucks, and drums.

STORAGE/TRANSPORT TEMPERATURE:

Hot water system recommended for temperature control. Temperature should not be held at over 110 °F (43 °C) for long periods.

STORAGE / TRANSPORT PRESSURE:

Ambient

LOAD / UNLOAD TEMPERATURE:

90 - 110°F (32 - 43°C)

STORAGE AND HANDLING MATERIALS:

TANKS: Carbon steel with effective moisture control, carbon steel coated with baked phenolic, fiberglass reinforced plastic with epoxy or polyester resin, or metallic zinc in an inorganic binder.

NOTE: Any moisture may cause rusting of carbon steel. Product contamination may result.

SPECIAL PRECAUTIONS:

Inert gas blanket and breathing system needed to maintain color stability. Use dry inert gas having at least -40°F dew point.

6. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Mechanical ventilation may be necessary if working with the product in enclosed areas or at elevated temperatures.

Personal Protective Equipment

EYES:

When contact with liquid is possible, use a face shield. Otherwise use safety glasses with side shields or goggles.

SKIN:

Full protective clothing, chemical boots, and chemical gloves when contact with liquid is possible.

RESPIRATORY PROTECTION:

Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Select the appropriate NIOSH-approved organic vapor air-purifying respirator, self-contained breathing apparatus, or air-supplied respirators in situations where there may be potential for overexposure.

Exposure Guidelines:

None established.

Carcinogenicity

No carcinogenic ingredients.

7. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

Colorless liquid.

VISCOSITY:

12.3 cSt @ 100°F/38°C

ODOR:

Sweet, pungent odor.

PHYSICAL STATE:

Liquid

VAPOR PRESSURE (mm Hg.):

0.014 @ 100°F/38°C

BOILING POINT:

490 - 498°F (254 - 259°C)

MELTING POINT:

74°F (23°C)

SOLUBILITY IN WATER:

0.0016 g/100g

SPECIFIC GRAVITY (H₂O=1):

0.830 @ 60°F /15°C

8. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:

High temperatures.

INCOMPATIBILITY WITH OTHER MATERIALS:

Can react with strong oxidizers, inorganic acids, and halogens.

HAZARDOUS DECOMPOSITION PRODUCTS:

None expected.

HAZARDOUS POLYMERIZATION:

Should not occur.

9. TOXICOLOGICAL INFORMATION

EYES:

Primary Eye Irritation Index (Rabbits): 27 at 24 hours; (Maximum score is 110). Corneal opacity was observed. Irritation not completely gone by day 3, the last day of observation.

SKIN:

Acute Dermal LD₅₀ (Rabbits): 8 - 12 g/kg.

Primary Skin Irritation Index (Rabbits): 4.6 (Maximum score is 8.0)

INHALATION:

No specific data available.

INGESTION:

No mortality in rats given a dose of 26.5 g/kg.

10. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

Phase 22 toxicity to fathead minnows: 96h LC₅₀ = 1.01 mg/l.

CHEMICAL FATE INFORMATION:

Phase 22 is biodegradable (75% removal after 46 days in OECD Test 301B).

11. DISPOSAL CONSIDERATIONS

SPECIAL INSTRUCTIONS:

Dispose of in accordance with local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

WASTE CLASSIFICATION:

Any unused product or empty containers may be disposed of as non-hazardous in accordance with state and federal requirements. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification to hazardous. If the resulting material is determined to be hazardous, please dispose in accordance with state and federal (40 CFR 264) hazardous waste regulations.

EMPTY CONTAINERS:

Empty containers retain product residue (liquid and/or vapor) and can be dangerous. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.** Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

(See Section 4 for CERCLA Reporting Requirements)

12. TRANSPORT INFORMATION

DOT DESCRIPTION:

This product is not a hazardous material according to DOT regulations for ground transportation.

ICAO / IATA DESCRIPTION:

This product is not a dangerous good as defined by IATA for air transportation.

IMO DESCRIPTION (IMDG CODE):

This product is not a dangerous good as defined by IMO in the IMDG Code for water transportation.

13. REGULATORY INFORMATION U.S. Federal Regulations

OSHA HAZARD COMMUNICATION STANDARD CLASSIFICATION:

Eye irritant as defined by the OSHA Hazard Communication Standard.

SARA 302 STATUS:

Contains no chemicals subject to SARA 302 reporting.

SARA 311/312 CLASSIFICATION:

SARA 311/312 "Immediate (acute) health hazard".

SARA 313 CHEMICALS:

Contains no chemicals subject to SARA 313 reporting.

(See Section 4 for CERCLA Reporting Requirements.)

International Regulations

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) CLASSIFICATION:

Class D, Division 2, Subdivision B: Toxic material.

State Regulations

CAUFORNIA SAFE DRINKING WATER ACT (PROP 65) LISTING:

****No ingredients listed in this section****

Based on current analytical information, this product contains no detectable quantities of chemicals on the California Proposition 65 list.

14. OTHER INFORMATION

<u>Hazard Ratings</u>	<u>NFPA HMIS</u>	
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HEALTH:	2	2
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FLAMMABILITY:	1	1
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REACTIVITY:	1	1
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Revision Summary

NA

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TCP Reliable Inc.
551 Raritan Center Parkway
Edison, NJ 07650
(732)346-9200

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PREPARED BY: TCP Reliable Inc.

PHONE NUMBER: (732) 346-9200
