

## Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

### Product identifier:

Identification as on the label/Trade name: Ehrlich Reagent

### Relevant identification uses of the substance and uses advised against:

**Identified uses:** The Ehrlich Reagent is designed to identify unknown substances.

**Uses advised against:** No other uses are advised.

### Details of the supplier of the Safety Data Sheet:

TN Scientific LLC  
Knoxville, TN  
37931 USA

### Emergency telephone numbers:

24-hour Emergency Contact:  
CHEMTREC 24-hour: +1-800-424-9300

## Section 2: Hazards Identification

### Classification of the substances or mixture:

The mixture is classified according to: Regulation EC 1272/2008 [EU-GHS/CLP]

#### **Hazard classes/Hazard categories:**

Skin Corrosive (Category 1B)

#### **Hazard Statement:**

H314

### Label elements:

#### **Hazard pictograms:**



**Signal Word:** Danger.

#### **Hazard Statements:**

H314 Causes severe skin burns and eye damage.

#### **Precautionary Statements:**

P260 Do not breathe dusts or mists.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local regulations.

#### Section 4: First-Aid Measures

##### Description of first aid measures:

**Inhalation:** Breathe fresh air. If breathing discomfort occurs and persists after cessation of exposure, see a medical doctor.

**Skin contact:** Rinse with water and soap. Take off immediately all contaminated clothing. Consult a doctor if irritation persists.

**Eye contact:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek medical advice.

**Ingestion:** If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Seek medical advice at once.

##### Most important symptoms and effects, both acute and delayed:

Causes severe skin burns and eye damage.

**Indication of any immediate medical attention and special treatment needed:** Treat symptomatically.

#### Section 5: Fire-Fighting Measures

##### Extinguisher media:

**Suitable extinguishing media:** Put out the fire using appropriate agents against the surrounding fire.

**Extinguishing media which must not be used for safety reasons:** None.

**Special exposure hazards arising from the substance or preparation:** Non-flammable. Hydrogen gas is released in contact with most metals.

##### **Special protective equipment for fire-fighters:**

According to the combustible substance involved.

#### Section 6: Accidental Release Measures

##### Personal precautions, protective equipment and emergency procedures:

Wear personal protective equipment.

**Environmental precautions:** Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite). Avoid undiluted spillage entering the sewers, basements or pits and watercourses.

##### Methods for containment and cleaning up:

Ventilate area and wash spill site after material pickup is complete. Throw sand, ashes or powder cement to absorb the liquid. Neutralize with slaked lime (calcium hydroxide), sodium carbonate, calcium carbonate or sodium bicarbonate. Place in container for disposal according to local / national regulations.

#### Section 7: Handling and Storage

##### Precautions for safe handling:

Put on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest.

**Conditions for safe storage, including incompatibilities:**

Store in cool, dry, clean, well-ventilated areas away from alkaline products and metals. Do not store under direct sun light. Do not store at temperatures close to freezing point.

## Section 8: Exposure Controls and Personal Protection

**Control parameters:**

**Occupational exposure limits:**

CAS No.	Ingredient	Value
7664-38-2	Orthophosphoric acid	8-hour TWA (ACGIH -US / EU): 1 mg/m <sup>3</sup> 15-min STEL (EU ELV): 2 mg/m <sup>3</sup>

**Exposure controls:**

**Appropriate engineering controls:** If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures, such as personal protective equipment:**

**Respiratory protection:** Not required to usual works. In foggy/vapors situations, use a spreading over all facemask with a suitable inorganic acid filter. If product air concentration is not known, use autonomous breathing equipment.

**Hand protection:** Wear suitable gloves (Neoprene gloves).

**Eye Protection:** Chemical safety goggles to chemical products or a face protection shield.

**Skin protection:** Use natural rubber boots. Use acid resistant protective clothing.

## Section 9: Physical and Chemical Properties

**Information on basic physical and chemical properties**

**Appearance (form):** Liquid.

**Color:** Transparent yellow.

**Odor:** Odorless.

**Odor threshold:** No data available.

**pH (concentration):** 1 - 1.5

**Melting point/range (°C):** ~21 °C

**Boiling point/range (°C):** ~158 °C

**Flash point (°C):** No data available.

**Evaporation rate:** No data available.

**Flammability (solid, gas):** No data available.

**Upper/lower flammability/explosive limits:** No data available.

**Vapor pressure:** No data available.

**Vapor density:** No data available.

**Relative density:** 1.6 - 1.7

**Water solubility (g/L):** Soluble.

**n-Octanol/Water partition coefficient:** No data available.

**Auto-ignition temperature:** No data available.

**Viscosity, dynamic:** No data available.

## Section 10: Stability and Reactivity

**Reactivity:** Exothermic reaction with water.

**Chemical stability:** Stable in recommended storage conditions.

**Conditions to avoid:** High temperatures.

**Materials to avoid:** Reacts violently with strong alkalis. In contact with reactive metals (as steel to carbon & aluminum) may produce hydrogen.

**Hazardous decomposition products:** At high temperature formation of phosphorous oxides.

## Section 11: Toxicological Information

### Information on toxicological effects:

**Acute toxicity:** No data available.

**Skin corrosion/irritation:** Causes severe skin burns and eye damage.

**Serious eye damage/irritation:** No data available.

**Respiratory or skin sensitization:** No data available.

**Germ cell mutagenicity:** No data available.

**Carcinogenicity:** No data available.

**Reproductive toxicity:** No data available.

**STOT-single exposure:** No data available.

**STOT-repeated exposure:** No data available.

**Aspiration hazard:** No data available.

## Section 12: Ecological Information

**Toxicity:** No data available.

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Results of PBT& vPvB assessment:** No data available.

## Section 13: Disposal Considerations

**Waste treatment methods:** The neutralized liquid can be disposed of in accordance to local regulations. Sodium carbonate, calcium carbonate and slaked lime (calcium hydroxide) can be used as neutralizer's agents.

**Product/packaging disposal:** The residue of the containers or the used container itself should be disposed in accordance with local requirements.

## Section 16: Other Information

**Indication of changes:** GHS aligned.

**Relevant classification and H statements (number and full text):**

H314 Causes severe skin burns and eye damage.

**Training instructions:** Use as instructed.



**Safety Data Sheet for  
Ehrlich Reagent**

According to ISO 11014:2009

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Version: 0

**Further information:** This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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