

MSDS - Material Safety Data Sheet**Product Name: Color Developing Reagent**

MSDS No.: 290P1

I. Basic Information:**Manufacturer:** Sirchie Finger Print Laboratories**Address:** 100 Hunter Place**City, ST Zip:** Youngsville, NC 27596**Country:** USA**Contact:** Tech Support**Information Telephone Number:** 919-554-2244**Emergency Contact:** ChemTrec**Emergency Telephone Number:** 800-424-9300**Emergency Restrictions:****Product Name:** Color Developing Reagent**MSDS No.:** 290P1**Issue Date:** 01/19/2011**Supersedes Date:** Not Available**II. Hazards Identification:****EMERGENCY OVERVIEW**

FLAMMABLE! May be fatal or cause blindness if ingested. May be absorbed through the skin. May cause respiratory and digestive tract irritation. Skin and eye irritant. May cause central nervous system depression. May cause liver and kidney damage. May cause adverse reproductive and fetal effects.

This material is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Health Effects**Route(s) of Entry:**

Inhalation, ingestion, skin, eyes

Health Hazards (Acute and Chronic):

Acute: Possible corneal injury

Chronic: Dermatitis, skin defatting

Signs and Symptoms:

Inhalation: Headache, dizziness, drowsiness, unconsciousness, coma

Ingestion: Excitement, headache, dizziness, drowsiness, nausea, collapse, unconsciousness, coma, death due to respiratory failure

Skin: Burning, redness, tearing, inflammation

Medical Conditions Generally Aggravated by Exposure:

Skin, eye, respiratory, kidney, liver, blood, heart, bladder, central nervous system diseases

Other Health Warnings:

Not Available

Potential Environmental Effects

Prevent from entering sewers or waterways. May be harmful to some aquatic life.

III. Composition/Information on Ingredients:

Chemical Name	CAS No.	% Range	Trade Secret
Ethanol	64175	85.4-92	
Ethyl acetate	141786	1.3	
Methanol	67561	3.6	
Methyl isobutyl ketone	108101	1.9	
Water (Distilled)	7732185	5	

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IV. First Aid Measures:

Emergency and First Aid Procedures:

Inhalation: Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen (To be administered by qualified medical personnel only!) Get medical attention.

Ingestion: If victim is conscious and alert, give 2-4 cups of milk or water. (Never give anything by mouth to an unconscious person!) Induce vomiting by giving one teaspoon (1 tsp) of syrup of ipecac. Get medical attention immediately.

Skin: Flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing. Seek medical attention.

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Do not allow victim to rub or keep eyes closed. Get medical aid immediately.

Note to Physicians:

Not Available

V. Fire Fighting Measures:

Suitable Extinguishing Media:

Water, dry chemical, chemical or alcohol-resistant foam

Unsuitable Extinguishing Media:

Wear self-contained breathing apparatus and protective clothing. DO NOT use straight streams of water. Water may be ineffective, but may be used to cool fire-exposed containers. Cool containers with flooding quantities until well after fire is out.

Products of Combustion:

Containers may explode in heat of fire. May form explosive peroxides. Vapors from this product may travel some distance from original point to an ignition source and flash back. Vapors may be heavier than air. They may spread along the ground and collect in low or confined areas.

"Empty" containers may contain product residue and may be dangerous. Empty containers should be completely drained and bunged and then disposed of according to local, state, and federal regulations.

Protection of Firefighters:

Wear normal turnout gear.

VI. Accidental Release Measures:

Personal Precautions:

Wear vapor respirator, safety goggles, and rubber gloves.

Environmental Precautions:

Prevent from entering sewers or waterways. May be harmful to some aquatic life.

Methods for Containment:

Remove sources of ignition (i.e. open flames, sparks).

Methods for Cleanup:

Soak up with inert absorbent material (dry sand or earth recommended; do not use flammable substances such as sawdust). A vapor-suppressing foam may be used to reduce vapors.

Other Information:

Dispose according to local, state, and federal regulations.

VII. Handling and Storage:

Handling Precautions:

Keep in tightly closed container. Light sensitive. Keep cool and dry. Avoid all ignition sources (heat, open flame, spark). Avoid incompatible materials. Electrically bond and ground all containers and equipment before transfer or use of material. Use only in well-ventilated areas. Avoid contact with skin, eyes, and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Wash thoroughly after handling.

Storage Precautions:

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Store with flammable materials.

"Empty" containers may contain product residue and may be dangerous. Empty containers should be completely drained and bunged and then disposed of according to local, state, and federal regulations.

VIII. Exposure Controls/Personal Protection:

Chemical Name	OSHA PEL	ACGIH TLV	Other Limits
Ethanol	1,000 ppm	1,000 ppm	57 F
Methanol	200 ppm	200 ppm	53.6 F
Methyl isobutyl ketone	100 ppm	50 ppm	Not Available
Ethyl acetate	400 ppm	400 ppm	24 F
Water (Distilled)	None	None	212 F

Engineering Controls:

Use only in well-ventilated areas.

Personal Protective Equipment:

Safety goggles, gloves, vapor respirator, protective clothing

IX. Physical and Chemical Properties:**Boiling Point:** 173.3 F**Boiling Range:** Not Available**Solubility In Water:** Soluble**Flash Point:** 57 F**Odor Threshold:** Not Available**Vapor Density (AIR = 1):** 5.82**pH Range:** Not Available**Decomposition Temp:** Not Available**Lower Explosive Limit:** 3.3**Specific Gravity (H₂O = 1):** Not Available**Other Information:** Not Available**Melting Point:** -90 C**Freezing Point:** Not Available**Evaporation Rate (Butyl Acetate = 1):** 2.0**Flash Point Method:** Not Available**Appearance and Odor:** Pale yellow liquid; aromatic odor**Vapor Pressure (mm Hg.):** 25**Partition Coefficient:** Not Available**Auto-ignition Temp:** Not Available**Upper Explosive Limit:** 19**X. Stability and Reactivity:****Stability:**

Stable. May be sensitive to peroxide formation.

Conditions to Avoid:

None specified

Incompatible Materials:

Acids; azo, diazo, and hydrazines; isocyanates; metals; nitrides; peroxides; hydroperoxides; epoxides; oxidizing agents; reducing agents; water reactive substances; ignition sources (heat, open flame, spark); light

Hazardous Decomposition Products:

Carbon monoxide and dioxide, peroxides, nitrogen oxides

Possibility of Hazardous Reactions:

Has not been reported.

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XI. Toxicological Information:

May be fatal or cause blindness if ingested. May be absorbed through the skin. May cause central nervous system depression. May cause liver and kidney damage. May cause adverse reproductive and fetal effects.

XII. Ecological Information:

Prevent from entering sewers or waterways. May be toxic to some aquatic life.

XIII. Disposal Considerations:

Dispose according to local, state, and federal regulations pursuant to 40 CFR part 261 of the Resource Conservation & Recovery Act (RCRA).

Methanol

RCRA U-Series: waste no. U154 (Ignitable waste)
This material is banned from land disposal according to RCRA.

XIV. Transport Information:

Shipping Name: Not Available

DOT Hazard Class: 3

DOT Subsidiary Hazard Class: Not Available

UN/NA#: UN1170

Packing Group: II

Transportation Information:

Keep in tightly closed container. Light sensitive. Keep cool and dry. Avoid all ignition sources (heat, open flame, spark). Avoid incompatible materials. Electrically bond and ground all containers and equipment before transfer or use of material. Avoid contact with skin, eyes, and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Wash thoroughly after handling.

IATA

Shipping name: Ethanol
Hazard class: 3
UN no.: 1170
Packing group: II
Flammable liquid!

XV. Regulatory Information:

All ingredients are listed on the TSCA inventory.

Methanol and methyl isobutyl ketone are listed as hazardous air pollutants (HAPs) under the Clean Air Act.

This material is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

XVI. Other Information:

Chemical State: Liquid Gas Solid
Chemical Type: Pure Mixture
Hazard Category: Acute Chronic Fire Pressure Reactive

**Additional Manufacturer Warnings:**

Using this product under normal, properly instructed procedures should not be hazardous.

2	Health
4	Flammability
1	Physical Hazard
H	Pers. Protection

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Additional Product Information:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.