

MSDS - Material Safety Data Sheet**Product Name: Iodine Print Enhancer**

MSDS No.: DCA16

I. Basic Information:**Manufacturer:** Sirchie Finger Print Laboratories**Address:** 100 Hunter Place**City, ST Zip:** Youngsville, NC 27596**Emergency Contact:** ChemTrec**Emergency Telephone Number:** 800-424-9300**Contact:** Tech Support**Information Telephone Number:** 919-554-2244**Last Update:** 01/26/2011**Expiration Date:****Chemical State:** Liquid Gas Solid**Chemical Type:** Pure Mixture

2	Health
4	Flammability
1	Reactivity
H	Pers. Protection

II. Ingredients: Trade Secret (N/D = Not Disclosed)

CAS No.	Chemical Name	% Range	EHS		IARC		SARA		OSHA PEL	ACGIH TLV	Other Limits
			NTP		SUB Z	313					
67663	Chloroform	<10	X				X	50 ppm	10 ppm	143 F	
110827	Cyclohexane	<90					X	300 ppm	300 ppm	-4 F	

III. Hazardous Identification:**Hazard Category:** Acute Chronic Fire Pressure Reactive**Hazardous Identification Information:**

EXTREMELY FLAMMABLE! May be absorbed through the skin. May cause respiratory and digestive tract irritation. May cause skin and eye irritation. Aspiration hazard. May cause central nervous system depression. May cause kidney and liver damage. May cause cardiac disturbances. 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.

IV. First Aid Measures:**Route(s) of Entry:**

Inhalation, ingestion, skin, eyes

Health Hazards (Acute and Chronic):

Acute: Chemical pneumonitis (if aspirated into lungs)

Chronic: Skin defatting and dermatitis

Signs and Symptoms:

Inhalation: Headache, dizziness, unconsciousness, coma

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

Skin: Burning pain, itching, redness

Medical Conditions Generally Aggravated by Exposure:

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Skin, eye, respiratory, kidney, central nervous system, liver, cardiovascular system, heart, gastrointestinal system, excretory system diseases

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: DO NOT induce vomiting. If victim is conscious and alert, give 2-4 cups of milk or water. (Never give anything by mouth to an unconscious person!) Aspiration hazard. 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.

Notes to physician: May cause cardiac sensitization to endogenous catecholamines which may lead to cardiac arrhythmias. DO NOT use adrenergic agents such as epinephrine or pseudoepinephrine.

Other Health Warnings:

V. Fire Fighting Measures:

Flash Point: -4 F

Lower Explosive Limit: 1.3

Upper Explosive Limit: 8.0

F.P. Method:

Fire Extinguishing Media: Foam, dry chemical, carbon dioxide

Special Fire Fighting Procedures:

Wear self-contained breathing apparatus and protective clothing. Water may be ineffective, but may be used to cool fire-exposed containers.

Unusual Fire and Explosion:

Material may ignite at room temperature. Vapors from this product may travel some distance from original point to an ignition source and flash back. This material is lighter than water and insoluble in water. The fire could easily be spread by the use of water in an area where the water can not be contained.

"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.

VI. Accidental Release Measures:

Steps to be Taken in Case Material is Released or Spilled:

Wear vapor respirator, safety goggles, and rubber gloves. Remove sources of ignition (i.e. open flames, sparks). Soak up with inert absorbent material (dry sand or earth recommended; do not use flammable substances such as sawdust). Scoop up with a non-sparking tool. Dispose according to local, state, and federal regulations.

VII. Handling and Storage:

Precautions to be Taken:

Keep in tightly closed container. Keep cool and dry. Avoid direct sunlight. Avoid all ignition sources (heat, open flame, spark). Avoid incompatible materials. Use only in well-ventilated areas. Avoid contact with skin, eyes, and clothing. Avoid inhalation and ingestion. Wash thoroughly after handling.

Other Precautions:

DO NOT reuse this container. "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.

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VIII. Exposure Controls/Personal Protection:

Ventilation Requirements:

Use only in well-ventilated areas.

Personal Protective Equipment:

Safety goggles, gloves, vapor respirator, protective clothing

IX. Physical and Chemical Properties:

Boiling Point: 61 C

Melting Point: 44 F

Evaporation Rate (Butyl Acetate = 1): 11.6

Vapor Pressure (mm Hg.): 160

Specific Gravity (H₂O = 1):

Vapor Density (AIR = 1): 4.12

Solubility In Water: Practically insoluble

Appearance and Odor: Colorless liquid; chloroform odor

Other Information:

X. Stability and Reactivity:

Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

Incompatibility (Materials to Avoid):

Oxidizers, ignition sources (heat, open flame, spark), light, acetone, alkalis, aluminum, disilane, lithium, magnesium, dinitrogen dioxide, nitrogen tetroxide, acids, phosphorus pentoxide, potassium, hydroxides, alcohols, potassium tert-butoxide, sodium, sodium methylate, triisopropylphosphine, fluorine, acetic anhydride + sodium hydrogensulfate, acetyl bromide, ammonia, silver nitrate, dichloromethane, disulfuryl difluoride, magnesium perchlorate, silver, oxides, platinum, tetrachlorosilane, steroids, ketones

Decomposition/By Products:

Carbon oxides, hydrogen chloride, chlorine, phosgene gas

Hazardous Polymerization:

Has not been reported.

XI. Toxicological Information:

May be absorbed through the skin. May cause central nervous system depression. May cause kidney and liver damage. May cause cardiac disturbances. May cause adverse reproductive and fetal effects.

Carcinogenicity

Chloroform

ACGIH--A3: Animal carcinogen

California--Carcinogen

NIOSH--Occupational carcinogen

NTP--Suspect carcinogen

OSHA--Possible select carcinogen

IARC--Group 2B: Possibly carcinogenic to humans

XII. Ecological Information:

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

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XIII. Disposal Considerations:

Dispose according to local, state, and federal regulations.

Cyclohexane

RCRA U-Series: waste no. U056 (Ignitable waste)
This material is banned from land disposal according to RCRA.

Chloroform

RCRA D-Series Maximum Concentration of Contaminants: Waste no. D022; Regulatory level = 6.0 mg/L
RCRA D-Series Chronic Toxicity Reference Level: 0.06 mg/L
RCRA U-Series: Waste no. U044

XIV. Transport Information:

Keep in tightly closed container. Keep cool and dry. Avoid direct sunlight. Avoid all ignition sources (heat, open flame, spark). Avoid incompatible materials. Avoid contact with skin, eyes, and clothing. Avoid inhalation and ingestion. Wash thoroughly after handling.

IATA

Shipping name: Cyclohexane
Hazard class: 3
UN no.: 1145
Packing group: II
Flammable liquid!

XV. Regulatory Information:

All ingredients are listed on the TSCA inventory.

Chloroform is listed as a hazardous air pollutant (HAP) under the Clean Air Act.

Cyclohexane is listed as a Hazardous Substance under the Clean Water Act.
Chloroform is listed as a Hazardous Substance, Priority Pollutant, and Toxic Pollutant under the Clean Water Act.

California Proposition 65: This product contains chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm (chloroform).

Chloroform is listed on the EPA Extremely Hazardous Substances (EHS) list.

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

XVI. Other Information:

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

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.