

# MATERIAL SAFETY DATA SHEET

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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## PRODUCT TRADE NAME:

Product Use:

**CPR (VIOLET) DELETION PEN**

**Image Remover Pen For Offset Printing Plate.**

## 2. COMPOSITION / INFORMATION ON INGREDIENTS:

Chemical Name	% by Wt Range	CAS Number	EXPOSURE LIMITS 8 hr. TWA (PPM)	
			OSHA PEL	ACGIH TLV
Isopropyl Alcohol	10-20	67-63-0	TWA: 400 ppm	TWA: 400 ppm
Iodine	1-10	7553-56-2	Ceiling: 0.1 ppm	Ceiling: 0.1 ppm

## 3. HAZARDS IDENTIFICATION:

### EMERGENCY OVERVIEW

"Ink" in pen is a clear, amber color liquid with a characteristic odor. **Isopropyl alcohol** contained (10-20%) in this product is a highly flammable, volatile liquid. It is considered more toxic than ethyl alcohol, but less toxic than methyl alcohol. Inhalation can cause irritation of the eyes and respiratory tract and central nervous system depression at high concentrations. Repeated skin contact may cause dermatitis. Systemic toxicity appears to occur mostly in cases of heavy ingestion or inhalation. There is recent evidence that skin absorption may be more likely to cause systemic effects than previously thought. **Iodine** contained (1-10%) in this product is corrosive and contact or inhalation of its vapors can cause severe eye, skin, nose, throat and lung irritation resulting in burns, coughing, allergic sensitization, and/or shortness of breath. Higher exposures can cause a build-up of fluid in the lungs (pulmonary edema). It is a noncombustible solid, but is an oxidizing agent which supports combustion. When heated, iodine emits highly toxic iodine and iodide vapor. Iodine reacts with a number of common chemicals. **Special handling & work place:** Avoid contact with skin & eyes. Do not eat, drink or smoke at work place. Wash hands thoroughly with soap and water. Remove contaminated clothing immediately. Ventilation in work area should be sufficient. Do not take internally.

### HMIS HAZARD CLASS

HEALTH	(Blue)	3
FLAMMABILITY	(Red)	3
REACTIVITY	(Yellow)	1
PROTECTIVE EQUIPMENT		C

### HAZARD INDEX:

0=Minimal Hazard

1=Slight Hazard

C: Safety gloves, goggles and apron.

2=Moderate Hazard

3=Serious Hazard

4=Severe Hazard

### POTENTIAL HEALTH EFFECTS

**TARGET ORGANS:** Eyes, skin, respiratory system, gastrointestinal tract, central nervous system and cardiovascular system.

**PRIMARY ENTRY ROUTES:** Inhalation, ingestion, skin and/or eye contact.

### ACUTE EFFECTS:

**INHALATION:** Inhalation of **Iodine** vapor causes excessive tearing of the eyes, nasal inflammation, tightness in the chest, sore throat and headache. **Iodine** vapors can severely irritate the respiratory tract, mucous membranes, eyes and skin. Higher exposures can cause a build-up of fluid in the lungs (pulmonary edema). Vapor inhalation of **Isopropyl Alcohol** is irritating to the respiratory tract and can cause central nervous system depression at high concentrations.

**EYES:** Exposure to the vapor or direct contact with the liquid causes irritation. Ocular exposure may result in severe burns, lacrimation (discharge of tears), and blepharitis (inflammation of the eyelids).

**SKIN CONTACT:** Contact may lead to irritation, burns, rashes, cutaneous hypersensitivity and/or local inflammatory reactions. Iodine is difficult to remove from the skin and may lead to cutaneous absorption. Significant cutaneous absorption may be fatal.

**INGESTION:** Accidental ingestions have provided the most information on **Isopropyl Alcohol** toxicity. Symptoms include nausea and vomiting, headache, facial flushing, dizziness, lowered blood pressure, mental depression, hallucinations and distorted perceptions, difficulty breathing, respiratory depression, stupor, unconsciousness, and coma. Kidney insufficiency including oliguria (reduced urine excretion), anuria (absent urine excretion), nitrogen retention, and edema (fluid build-up in tissues) may occur. Ingestion of **Iodine** may cause mouth burns, vomiting, abdominal pain, diarrhea and sometimes a metallic taste in the mouth.

**CARCINOGENICITY:** NTP - Not listed; IARC - Group 3, Not classifiable as to carcinogenicity to humans; OSHA - Not listed; NIOSH - Not listed; ACGIH - Not listed; EPA - Not listed; MAK - Not listed.

**Medical Conditions Aggravated by Long-Term Exposure:** Dermatitis or respiratory or kidney disorders.

**CHRONIC EFFECTS:** Repeated skin contact can cause drying of skin and delayed hypersensitivity reactions in some individuals.

## 4. FIRST AID MEASURES:

**EYES:** Immediately flush with large amounts of water for at least 15 minutes (remove contact lenses if easily possible), then get medical help.

**SKIN:** Quickly remove contaminated clothes. Immediately wash area with large amounts of water. Get medical help if rash, redness or irritation develops.

**INGESTION:** Rinse mouth and do not induce vomiting. Get medical help immediately.

**INHALATION:** Remove to fresh air and rest. If victim is having difficulty breathing, give oxygen if available. If victim is not breathing, start CPR and get immediate medical attention.

## 5. FIRE FIGHTING MEASURES:

**FLASH POINT:** 12°C.

**LOWER EXPLOSIVE LIMITS:** N/D **UPPER EXPLOSIVE LIMITS:** N/D

**EXTINGUISHING MEDIA:** Use powder, alcohol-resistant foam, water in large amounts, carbon dioxide.

**FIRE FIGHTING INSTRUCTIONS:** Firemen should wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment.

**FIRE & EXPLOSION HAZARDS:** This product is combustible and may be ignited by heat or flame.

**CPR (VIOLET) DELETION PEN**

**6. ACCIDENTAL RELEASE MEASURES:** \*\*\*Large Spills\*\*\* Eliminate potential sources of ignition. Wear appropriate respirator and other protective clothing. Shut off source of leak only if it is safe to do so. Prevent from entering drains, sewer, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to a non-leaking containers and seal tightly for proper disposal. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

**7. HANDLING AND STORAGE:** Wash hands thoroughly after handling. Avoid contact with skin. Avoid contact with eyes. Avoid breathing mist, dust, vapors or fumes. Harmful if swallowed. Keep caps closed when not in use. Store in cool, dry, well-ventilated area away from sources of ignition and incompatible materials listed in Section 10. FOR INDUSTRIAL USE ONLY. "KEEP OUT OF REACH OF CHILDREN".

**8. EXPOSURE CONTROLS, PERSONAL PROTECTION:**

**Engineering controls:** Local exhaust ventilation may be necessary to keep airborne concentrations below the permissible exposure limits-SEE SECTION 2. Use explosion-proof ventilation as required to control vapor concentrations.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** Safety gloves, goggles and apron. Be sure that eyewash is at work area.

**RESPIRATORY PROTECTION:** Avoid prolonged or repeated breathing of vapors. If exposure may or does exceed occupational exposure limits (Sec. 2) use a NIOSH-Approved respirator to prevent overexposure. In accord with 29 CFR 1910.134. Use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

**EYE PROTECTION:** Use safety glasses or goggles as appropriate (29 CFR 1910.133).

**SKIN:** Wear solvent resistant gloves.

**OTHER CLOTHING AND EQUIPMENT:** It is suggested that a source of clean water be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

**Appearance:** Clear, amber liquid. **Odor:** Characteristic odor.

**Boiling Point:** approx. 65°C

**Vapor Density:** N/D

**Solubility in Water:** None **Specific Gravity:** N/D

**Melting Point:** N/D

**Vapor Pressure:** N/D

**10. STABILITY AND REACTIVITY:**

**STABILITY:** Stable at room temperature and hazardous polymerization will not occur if product is used and stored as directed.

**CONDITIONS TO AVOID:** High heat, ignition sources, open flame.

**HAZARDOUS POLYMERIZATION:** Has not been reported.

**INCOMPATIBILITY WITH OTHER MATERIALS:** Strong acids, oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon dioxide, carbon monoxide, and various hydrocarbons.

**11. TOXICOLOGICAL INFORMATION:**

**LD50:** Rat, oral: 5628mg/kg.

**Acute Overexposure:** The substance irritates the eyes, the skin, and the respiratory tract.

**Chronic Overexposure:** Repeated or prolonged contact may cause skin sensitization. Lungs may be affected by repeated or prolonged exposure to the vapor. The substance may have effects on the thyroid.

**12. ECOLOGICAL INFORMATION:** N/D.

**13. DISPOSAL CONSIDERATIONS:** Dispose in a manner consistent with federal, state, and local regulations. Refer to latest EPA or State Regulations regarding proper disposal.

**14. TRANSPORT INFORMATION:** Not DOT regulated. Product is labeled in accordance with U.S. 49CFR.

**15. REGULATORY INFORMATION:**

<u>Ingredient</u>	<u>RCRA 40 CFR</u>	<u>CERCLA 40 CFR 302.4</u>	<u>SARA 40 CFR 372.65</u>	<u>SARA EHS 40 CFR 355</u>	<u>TSCA</u>
Isopropyl Alcohol	Not listed	Not listed	Listed	Not listed	Listed
Iodine	Not listed	Not listed	Not listed	Not listed	Listed

**16. OTHER INFORMATION:** All information appearing herein is based upon Data obtained from Manufacturer and/or recognized technical sources. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the material are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use, disposal of the material. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for his own particular use. To the best of our knowledge, the information contained herein is accurate. However, neither Nikken Chemical Laboratory Co., Ltd., nor any of its distributors assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.