



## SS2 Ink Cartridge Cyan

Revised 27 July 2004

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **SS2 Ink Cartridge Cyan**  
 Product Code: **SPC-0380C**  
 Company Identification  
 Manufacturer's Name/Supplier Address: Mimaki Engineering Co., Ltd.  
 1333-3 Kazawa Oaza Tomishi,  
 Nagano 389-0514 Japan

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 Contact Person: Masaru ohnishi (Inks & Media Dept.)

### 2. COMPOSITION / INGREDIENT INFORMATION

This is a solvent ink formulation.

Components (% by weight)

<u>Material</u>	<u>CAS Number</u>	<u>Contents%</u>	<u>Note</u>
Carbon Black	----	NONE	----
N-Butyl Acetate	----	----	----
Propylene glycol mono-methyl ester acetate	----	NONE	----
Xylene	1330-20-7	0.01-0.1	PRTR
Trimethylbenzene- 1,3,5	108-67-8	0.1-0.5	PRTR
Phthalocyanine Blue	Registered	2.0-8.0	Organic pigment
Nickel compound	----	NONE	----
Organic Pigment	Registered	2.0-8.0	

### 3. HAZARDS IDENTIFICATION

#### 3.1 Emergency overview: Flammable liquid, acute toxic substance

Ink component is a Cyan liquid that causes eye, nose or throat irritation, and can cause slight central Nervous System Depression. Closed containers can expand by heat and fire and will build pressure and explode. Vapors can travel along the floors and ground

until reaching a source of ignition and flash back. Avoid contact with eyes and clothing. In case of skin contact, wash with soap and water. May cause target organ effects. Keep out of the reach of children.

**3.2 Potential Health Effects:**

**Eye:** Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. See Section 11 for Toxicology.

**Skin:** Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching. See Section 11 for Toxicology.

**Inhalation:** Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. See Section 11 for Toxicology.

**Ingestion:** Gastrointestinal Irritation: Signs/Symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. See Section 11 for Toxicology.

**Target Organ Effect:** Central Nervous System (CNS) Depression: Signs/symptoms May include headache, dizziness, drowsiness, diminished coordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

**4 FIRST AID MEASURES**

**Eyes:** Immediately flush with large amounts of water for 15 minutes, hold eyelid apart to ensure irrigation. Get medical attention.

**Skin:** Wash skin thoroughly with soap and water. Remove contaminated clothing and wash thoroughly before reuse. Consult a physician if irritation continues.

**Inhalation:** Remove individual to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

**Ingestion:** Remain calm. Seek the attention of a physician.

**5 FIRE FIGHTING MEASURES**

**Flammability:** Combustible liquid. See Section 9 for Flash Point.

**Extinguishing Media:** Dry chemical, carbon dioxide, or alcohol foam or dry sand.

**Fire Fighting Instructions:** Water should not be used; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained positive pressure or pressure-demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face

mask and protective covering for exposed areas of the head.

**6 ACCIDENTAL RELEASE MEASURES**

Wear gloves, mask, apron and goggles as protective measures. Evacuate unprotected and untrained personnel from hazard area. Ventilate the area with fresh air. For large spills, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain the spill. Use sponges to wipe up the ink, then rinse the area with a damp cloth. Place waste in a closed container for disposal. Do not dispose of waste to the sewer or ground. Wash hands with soap and water.

**7 HANDLING AND STORAGE**

**7.1 Handling:**

Avoid eye contact with vapors, mists, or spray. Avoid breathing of vapors, mists or spray. Avoid prolonged or repeated skin contact. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. For industrial or professional use only. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. No smoking while handling this material. Avoid contact with oxidizing agents. Wear protection such as gloves, mask, apron, goggles, etc. Ground equipment against electrostatics and use explosion-proof electric equipment.

**7.2 Storage:**

Store away from acids. Store away from heat or open flame. Store out of direct sunlight. Store away from oxidizing agents. Keep container in a well-ventilated area.

**8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>Engineering Controls:</b>	Proper ventilation
<b>Exposure Control:</b>	Not established
<b>Personal Protection:</b>	Not required under proper installation or removal of cartridge in or out of the Printer. Other handling use requires gloves, goggles, apron, mask, etc.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Cyan Liquid
<b>Odor:</b>	Slight solvent odor
<b>pH:</b>	Not applicable
<b>Boiling point:</b>	Over 176°C (348.8°F)
<b>Steam pressure:</b>	Less than 133Pa (20°C/68°F)
<b>Flash point:</b>	about 69.1°C (156.4°F)
<b>Ignition point:</b>	169°C (336.2°F)

<b>Flammable point</b>	2.2% - 33.0%
<b>Oxidizing properties:</b>	None
<b>Vapor density:</b>	0.972±0.01
<b>Relative density:</b>	No data available
<b>Solubility in water:</b>	Soluble
<b>Solubility in fat:</b>	No data available
<b>Partition coefficient:</b>	No data available
<b>Viscosity:</b>	No data available

**10 STABILITY AND REACTIVITY**

<b>Stability:</b>	Stable under normal temperature
<b>Hazardous Polymerization:</b>	No data available
<b>Hazardous decomposition products:</b>	No data available
<b>Incompatibility:</b>	Oxidizers and Explosives
<b>Harmful gas from combustion:</b>	CO, low-molecular monomer or other harmful gases may occur.

**11 TOXICOLOGICAL INFORMATION**

**Routes of Overexposure:** Eye, skin, inhalation, and oral ingestion

**Acute Health Hazards:** Overexposure of the eye surface to ink may be mildly irritating. Overexposure of ink contact with the skin may cause irritation and in some people, swelling and redness. Intentional inhalation of ink vapors may result in respiratory tract irritation. Intentional or accidental oral ingestion may cause an upset stomach.

**Chronic Health Hazards:** None known

**Carcinogenicity:** With excessive exposure, carbon black has been listed as a possible human carcinogen. However, as engineered within this ink cartridge, emissions of air of carbon black during normal printing use have not been found. IARC, the International Agency for Research on Cancer, has found printing inks to be not classifiable as human carcinogens.

**Toxicity:** **Xylene:** Density – 100ppm  
ACGIH (TLV) – 100ppm  
Others – (rat) LD50:4300mg/kg  
**Trimethylbenzene:** Density – 25ppm  
ACGIH (TLV) – 25ppm  
Other – (rat) LD50:1303mg/kg  
If improperly used, it may cause Liver and Kidney problems.

**Eye Irritating:** Mildly or serious irritating (exposure time and amount)

**Skin Irritating:** Minimally irritating

**Skin sensitizing:** No data available

**12 ECOLOGICAL INFORMATION**

No data available on the adverse effects of this material on the environment. Take precautions against accidental spillage into the rivers and upon the ground.

**13 DISPOSAL CONSIDERATIONS**

Used and unused cartridges are not a federal RCRA hazardous waste. Disposal should be in accordance with federal, state, and local requirements. Do not dispose of in the drainage system or on the ground.

**14 TRANSPORTATION INFORMATION**

Follow proper Handling and Storage. Follow proper transportation of a Flammable Substance laws.

**15 REGULATORY INFORMATION**

<b>US information:</b>	Flammable Material. Hazardous Material 4 <sup>th</sup> category, 3 <sup>rd</sup> Petroleum oil (Aqueous).
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**16 OTHER INFORMATION**

This "Material Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time due to revision of laws and/or new knowledge. Mimaki Engineering does not warrant the completeness or accuracy of the information contained herein.

**End of MSDS**