



# SP - 1400

## PRODUCT TECHNICAL DATA SHEET



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### APPLICATIONS

Diazo emulsion for Plastisol, Discharge and Water-based textile ink systems.

### PHYSICAL PROPERTIES

- Blue colored Diazo Emulsion
- For use with plastisol and water-based textile ink systems.
- Virtually pin hole and fish eye free.
- Extremely durable on press.
- Suitable for use with water based inks when hardened with Murakami MS or A&B Hardeners.
- Outstanding resolution and definition properties, reclaim easily.
- 42% solids content

### HANDLING

Handle under yellow safe lights. Avoid exposure to sunlight, fluorescent and incandescent lights.

### SENSITIZING

Mix the sensitizer according to the instructions on the bottle. Pour the entire solution into the emulsion and mix thoroughly. To reduce air bubbles let the emulsion stand for two hours (preferably overnight) before using.

### MESH PREPARATION

It is important to remove any contamination, residual inks, cleaning chemistry, or general dirt and dust. Murakami 701 Haze/Ghost Remover (a non-caustic water soluble liquid) will remove residual ink and/or emulsion. Murakami 801 Screen Degreaser will help eliminate any further contaminants. Completely dry the screen before coating.

### COATING PROCEDURE

- Use a clean dry coating trough that has a nick free surface for smooth coating.
- Apply one or two coats of emulsion to the print side. Rotate the frame 180 degrees and apply one or two coats of emulsion to the squeegee side.
- Additional coats may be added to the print side if thicker stencils are required.

### DRYING

Dry the coated screen horizontally with the print side down in a clean light safe area. The following will help to ensure complete drying:

- 86° to 104° degrees F (30° to 40° C)
- 30% to 50% relative humidity
- Good air circulation

The use of a screen drying cabinet with heated airflow can help in maintaining these conditions.



**MURAKAMI**

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## EXPOSURE

Clean the film positives and vacuum frame glass prior to exposure to minimize pinholes. Exposure is affected by mesh color, emulsion type, coating thickness, lamp type and the age of the bulb itself. For best results use an exposure calculator to determine the correct exposure time. It is important that a lamp designed for exposing screen printing emulsions is utilized.

**Note:** The use of film positives that are either frosted or have weak black density can reduce resolution and definition qualities of the coated screen.

Mesh/Inch	Color	Seconds
86	W	150-175
110	W	120-150
200	Y	90-120
300	Y	60-75
350	Y	30-50

**Note:** All exposure times listed above are suggested times using a 5KW Metal Halide lamp at a distance of 40".

## WASHOUT

Gently spray both sides of the screen with lukewarm water, wait a few seconds to allow emulsion to soften then wash print side of screen until image is fully open. Rinse both sides thoroughly and dry. The use of a drying cabinet or fans is recommended to dry the screen.

## RECLAIMING

- Use Murakami 501, 505 or 507 Screen Cleaner to remove all excess ink from the frame.
- Remove the emulsion with Murakami 601, 605, or a solution of Strip Super-P. Rinse thoroughly.
- Use Murakami 701 to remove haze and ghost if required.
- Degrease with Murakami 801, rinse both sides thoroughly and let dry.

## STORAGE AND HANDLING

Store the emulsion in a cool dry area. Un-sensitized emulsion has a shelf life of at least one year when stored at room temperature.

Use the sensitized emulsion within 2-3 weeks for best results.

Coated screens may be stored for up to one month when kept under the following conditions.

- 59° to 77° degrees F (15° to 25° C)
- 30% to 50% relative humidity

## SPECIAL APPLICATIONS

Suitable for use with water based and discharge inks when hardened with Murakami Hardener and/or Hardener A&B. Stencils treated with Hardener A&B will not be reclaimable.

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INFOTRAC  
EMERGENCY #  
800.535.5053

## **MATERIAL SAFETY DATA SHEET**

Date Prepared/Revised: April 5, 2010

### **I. PRODUCT IDENTIFICATION**

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Trade Name (as labeled): **SP-1400**  
Manufacturers Name:  
Murakami Screen USA Inc.  
745 Monterey Pass Road  
Monterey Park, CA 91754  
Phone Number: 800-562-3534

### **II. HAZARDOUS INGREDIENTS**

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	CAS NO.	% RANGE
Vinyl Acetate	108-05-4	<0.3%

All ingredients of this product are listed under the TSCA INVENTORY

### **III. HEALTH AND HAZARD INFORMATION**

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#### TOXICOLOGY

Threshold Limit Volume: Vinyl Acetate: 10PPM (2001 ACGIH TWA)

Inhalation: Excessive exposure may cause irritation to upper respiratory tract. A single prolonged exposure is not likely to be hazardous. Signs and symptoms of excessive exposure may be to the central nervous system.

Skin Contact: Excessive exposure may cause minor irritation.

Eye Contact: May cause eye irritation and also moderate corneal injury.

Protective Equipment: Gloves, safety glasses

### **IV. FIRST AID PROCEDURES**

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Never give fluids or induce vomiting if patient is unconscious or having convulsions. Medical conditions aggravated by exposure may be pre-existing skin or other physical conditions.

Ingestion: Induce vomiting if large amounts are ingested. Contact a physician.

Eye: Rinse well with water immediately and continuously. Contact a physician if irritation persists.

Skin: Wash well with soap and water. Contact a physician if irritation persists.

Inhalation: Remove patient from the area to fresh air. Contact a physician if irritation persists or breathing becomes difficult.

NOTE TO PHYSICIAN: No specific antidote. Supportive Care: Treatment based on judgment

of the physician in response to the reactions of the patient.

## **V. SPILL, LEAK, AND DISPOSAL PROCEDURES**

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Steps to be taken in case of spills or leaks:

Spillage should be contained by and covered by large quantities of sand, earth, or similar absorbent material, then brushed in vigorously to assist absorption. The mixture can then be collected with a plastic shovel into drums, plastic bags, or containers and remove for disposal. Prevent from flowing into ground or surface water.

Disposal: Follow all relevant regulations for disposal. Check with your local authority.

Storing: Store container tightly closed in a well-ventilated, cool, and dark place.  
Keep away from heat and sunlight (UV light).

Note: Dispose all waste material in accordance with federal, state, and local authorities.

## **VI. PHYSICAL PROPERTIES**

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Specific Gravity @ 77°F (25°C): 1.1g/cm<sup>3</sup>

Boiling Point: 100°C

Viscosity @ 77°F (25°C): 5000-8000mPas

pH Value: 4.0-6.0

Appearance and Odor: Blue liquid with mild odor.

## **VII. FIRE AND EXPLOSION**

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Flash Point / Method: Not flammable

Appropriate Extinguishers: Use water, foam, dry chemical and/or CO<sub>2</sub>.

## **VIII. REACTIVITY DATA**

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Stability: Stable under normal conditions.

Conditions to avoid: Heat and exposure to sunlight (UV light).

## **IX. SPECIAL HANDLING PROCEDURES**

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Ventilation and engineering controls:

None required. Local exhaust ventilation may be necessary for some operations.

Respiratory Protection:

None required under normal conditions. If respiratory irritation is experienced, use an approved respirator.

Use an approved self contained breathing apparatus if emergency conditions occur.

Eye Protection:

Use safety glasses.

Storage: Protect from freezing.

## **X. REPORTING REQUIREMENTS AND ADDITIONAL INFORMATION**

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HMIS Code System Rating: Health 1; Flammability 0; Reactivity 0.

NFPA 704 Code System Rating: Health 0; Flammability 0; Reactivity 0.

Volatile Organic Compound (VOC): None

Contains no carcinogen or petroleum hydrocarbons.

Note: Information herein is given in good faith and accurate to the best of our knowledge. No warranty is given, expressed, or implied.