

SKY-SCAPES®

MSDS# ULT

Please Note: This report is on inks in their liquid state prior to printing Sky-Scapes. No testing has been done on cured (dried) Fascure Ultra Series Printing Inks. See Repacorp correspondence with Sericol page 6 and 7.

For screen printing inks as required under 29 CFR 1910.1200 (g).

Fujifilm Sericol USA, Inc.	***HMIS Ratings***
20 West 14 th Avenue	Health.....2
North Kansas City, Missouri 64116	Flammability.....1
	Reactivity.....1

Emergency phone number (816) 587-0178	Preparer: Craig Poggenpohl, Regulatory Compliance Mgr. Date of preparation: Revised 01/26/06/VP
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Revisions: Section II.

Section I – Product Identification

Product Code: ULT
Label Identity: Fascure Ultra Series
Product Class: Ultraviolet Curable Screen Ink

Section II – Hazardous Ingredients

Common Name (CAS Registry #)		Recommended Exposure Limits (PPM) ¹		Vapor Pressure (mm Hg @ 20 C) ¹
		ACGTH TLV-TWA	OSHA PEL	
ACRYLATE ESTERS	(TS)	NE	NE	<1
GLYCOL ETHER ACRYLATE ³	(TS)	NE	NE	<1
ACRYLATED AMINE	(TS)	NE	NE	<1
EPOXY ACRYLATE ⁵	(TS)	NE	NE	<1
CARBON BLACK ⁴	(1333-86-4)	3.5mg/m ³	3.5mg/m ³	NA
PHOTOINITIATORS	(TS)	.5 ² mg/m ³	NE	<1

NA - Not Applicable NE- Not Established UKN- Unknown TS- Trade Secret

¹ Unless noted otherwise, the units are PPM and mm Hg @ 20 C, respectively, for exposure limits and vapor pressures.

² Recommended by manufacturer.

³ See section XIII for SARA 313 Information.

⁴ Inks containing carbon black: ULT-301 ULT35667 ULT-HTK ULT-IHK ULT-SB.

⁵ Present in halftones only. See section XIII – subject to SNUR.

Section III – Physical and Chemical Characteristics

Boiling range: > 150 C.

Density: 9.05 – 9.08 lb./gal.

Volatile organic compounds: less than 2% by weight

Vapor density: heavier than air

Evaporation rate: slower than diethyl ether.

Appearance and odor: viscous liquid, various colors, acrylate odor.

Section IV – Physical Hazard Data

Flammability classifications: OSHA: Class III B DOT: not regulated

Closed cup flash point: >200 deg. F. Explosive Limits: unknown

Extinguishing media: “Class B” fire extinguishers used per instructions (“alcohol” foam, CO₂, dry chemical, water fog).

Unusual fire and explosion hazards: high temperatures/inhibitor depletion/accidental impurities/exposure to radiation/oxidizers may cause spontaneous polymerizing reaction, generating heat/pressure. Closed container may rupture/explode during runaway polymerization.

Special firefighting procedures: do not enter fire area without proper protection; see section on decomposition products possible. Fight fire from safe distance/protected location. Heat/impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Water may be ineffective in firefighting due to low solubility. Use water spray/fog for cooling. Pressure relief system may plug with solids, increasing risk of overpressure. Notify authorities if liquid enters sewer/public waters.

Section V - Emergency and First-Aid Procedures

Primary routes of entry are dermal.

For swallowing: drink two glasses of water to dilute. Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult physician or poison control center immediately. Treat symptomatically. Be prepared to provide the attending physician with a copy of this document.

For skin contact: remove contaminated clothing. Wash thoroughly with mild soap and warm water. Consult a physician if there is any persisting irritation.

For inhalation: remove victim to a well ventilated area. Give oxygen or artificial respiration as required. Treat symptomatically and consult physician.

For eye contact: flush with copious amounts of water for at least fifteen minutes. Consult physician.

Special notes to attending physician: there is not specific antidote. Treatment of overexposure should be directed at control of the symptoms and the clinical condition.

Section VI - Signs and Symptoms of Overexposure

Acute Effects:

Swallowing: contains material considered slightly toxic. May cause gastric disturbances.

Skin absorption: contains materials that may be slightly toxic. Exposure to this material can result in absorption through skin causing health hazard.

Inhalation: no significant signs or symptoms indicative of any adverse health hazard are expected to occur at standard conditions due to the low volatility of this product. However, aerosols, or vapors which may be generated at elevated processing temperatures, may cause respiratory tract irritation. Symptoms of irritation may include coughing, mucous production and shortness of breath.

Skin contact: contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Prolonged contact may cause blister formation (burns). Since irritation may not occur immediately, contact can go unnoticed.

Eye contact: may cause moderate eye irritation, burning sensation, swelling, tearing, and redness.

Medical conditions known to be aggravated by overexposure: lung conditions, sensitizations, or allergies, skin and eye conditions.

Chronic effects: none known.

Additional known health hazards: none known.

Section VII - Reactivity Data

This mixture is potentially unstable and hazardous polymerization may occur if exposed to materials and conditions to be avoided.

Incompatibility (materials to avoid): strong acids, oxidizers, alkali metal hydroxides, polymerization initiators, peroxides, and inert gases.

Hazardous decomposition products: carbon monoxide, carbon dioxide, mixed oxides of nitrogen.

Conditions to avoid: extreme temperatures, direct sunlight, x-ray sources, electron beam sources, or ultraviolet radiation sources.

Section VIII – Spill or Leak Procedures

Precautions if material is spilled or released: spilled/released material may polymerize and release heat/gases. Extinguish all ignition sources. Blanket with firefighting foam. Impound/recover large land spill; soak up small spill with inert solids. On water, contain /minimize dispersion/collect. Report per regulatory requirements.

Waste disposal methods: contaminated product/soil/water may be RCRA/OSHA hazardous waste due to potential for internal heat generation (see 40 CFR 261 and 29 CFR 1910). Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids in systems that use compatible fuel. Dilute with clean, low viscosity fuel. Avoid flameouts. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass. Assure effluent complies with applicable regulations.

Section IX – Safe Handling and Use Information

Respiratory protection: due to low vapor pressure, inhalation is not considered an occupationally significant route of exposure, however, a NIOSH-approved respirator is recommended for operations resulting in excess organic vapors in the breathing zone.

Ventilation requirements: local exhaust recommended when appropriate to control exposure to mist or aerosols. General exhaust is normally adequate to minimize exposure to vapors.

Protective gloves: rubber or neoprene to minimize skin contact.

Eye protection: safety goggles or full face shield whenever a splash hazard is presented.

Hygienic safety practices: wash hands before eating, using tobacco products, or using the washroom. Tobacco and food should be consumed in designated area only.

Additional safety equipment: impermeable aprons and boots. Safety shower and eye bath should be made available.

Section X – Disclaimer

Sericol, Inc. makes no warranty, expressed or implied, as to the accuracy or reliability of information contained herein, except that such information is, to the best of Sericol's knowledge and belief, accurate as of the date indicated on this document. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution, although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Section XII – Purchaser's Obligations

Sericol Inc. urges the customer receiving this material safety data sheet to study it carefully to become aware of hazards, if any, of the products involved, in the

interest of safety, you should (1) Notify your employees, agents, and contractors of the information on this sheet, (2) Furnish a copy to each of your customers for this product, and (3) Request your customers to inform their employees, customers, and gents, as well.

Section XIII – Regulatory Information

Toxic Substances Control Act (TSCA) Status: The ingredients of this product are listed on the TSCA inventory.

This product contains a component whose commercial use is subject to toxic substances control act (TSCA) Section 5, Significant New Use Rule (SNUR) CFR 721.3850.

This product contains a toxic chemical or chemicals subject to the annual reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Certain Glycol Ethers: 10 – 20% by weight

This notification must not be detached from the Material Safety Data Sheet (MSDS) and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State of California Safe Drinking Water and Toxic enforcement At of 1986 (Proposition 65): this product may contain trace quantities of Formaldehyde, a chemical known to the state of California to cause cancer.

SERICOL

More than ink...Solutions.



FUJIFILM SERICOL USA INC.

1101 West Cambridge Drive Kansas City KS 66103
P.O. Box 2914 Kansas City KS 66110-2914
Telephone: (913) 342-4060 Fax: (913) 342-4752
www.fujifilmsericol.com

March 23, 2007

Ms. Pat Larson
Repacorp Label Prod
31 Industry Park Court
Tipp City, OH. 45371

Dear Ms. Larson:

This letter is in response to your question on what the thermal decomposition products are for the cured (dried) Fascure Ultra printing ink series. We have not conducted testing to obtain this information, however, based on the ingredient Material Safety Data Sheets, we believe the following chemicals will be evolved: carbon monoxide, carbon dioxide, oxides of nitrogen, calcium oxide, sulfur, acrid smoke, and traces of various hydrocarbons. In addition, traces of copper may be evolved from gold metallics, certain blue and green printing inks.

Thank you for supporting our products. Should you have any more questions, please call me direct at (913) 573-3803 or e-mail me at craigpoggenpohl@fujifilmsericol.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Craig Poggenpohl', written in a cursive style.

Craig Poggenpohl
Regulatory Compliance Manager

Cc: Patrick Manley



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From: CraigPoggenpohl@FujifilmSericol.com
To: pat.larson@repacorp.com
Cc:
Subject: Fw: MSDS# ULT Question - Please respond

Sent: Tue 4/3/2007 10:47 AM

Dear Pat,

The MSDS is providing information for the printing ink in its **liquid state**, prior to curing. The liquid ink reacts to these certain radiations or high temperatures and polymerizes (cures). Obviously you want to avoid these conditions prior to use, i.e. - storage. However, once the reaction has been completed, the cured coating is inert and the radiation or high temperatures will no longer have any effect.

Hopefully I have answered your concerns.

Should you have any additional questions, please call or send an e-mail.

Regards

Craig Poggenpohl
Regulatory Compliance Manager
Fujifilm Sericol USA, Inc.
Phone#: (913) 573-3803
Fax#: (816) 842-4522

----- Forwarded by Craig D Poggenpohl/SericolUSA/Sericol on 04/03/2007 09:10 AM -----

"Pat Larson" <pat.larson@repacorp.com>
To <craigpoggenpohl@fujifilmsericol.com>
04/03/2007 08:52 AM
Subject MSDS# ULT Question - Please respond

Dear Mr. Poggenpohl:

Thank you for your March 23, 2007 letter in response to our end user's concern for fire and safety standards of all materials used in Hospitals.

Repacorp, Inc. is the manufacture of Sky-Scapes fluorescent light diffusers. We screen print scenes on acrylic and polystyrene panels that replace a fluorescent light's diffuser. A great number of our end users are hospitals, and they place the diffusers above patients receiving radiation treatments, x-rays, and laser treatments. In the MSDS# ULT information provided to me by Sericol, Section VII warns of conditions to avoid:

"Conditions to avoid: extreme temperatures, direct sunlight, x-ray sources, electron beam sources, or ultraviolet radiation sources."

As the inks are dried and in small amounts when placed in the hospitals, could Sericol please comment on placing the printed inks directly in contact with such conditions?

I would welcome a response I could pass on to our end users at the hospitals.

Best regards,

Pat

Pat Larson
Marketing Director
Repacorp Inc
31 Industry Park Court
Tipp City, OH 45371