

SAFETY DATA SHEET

Issuing Date: 06-Nov-2014

Version 2

SeriDisc OF Series

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name SeriDisc OF Series

Product code OF

(M)SDS # Product codes: OF-HTC OF-HTK OF-HTM OF-HTY

Product Use Ultraviolet Curable Screen Printing Inks .

Manufactured by
FUJIFILM Manufacturing U.S.A., Inc.
20 West 14th Avenue
North Kansas City, MO. 64116 USA
Phone#: (913) 342-4060

Distributed in Canada by
FUJIFILM Canada, Inc.
600 Suffolk Ct.
Mississauga, Ontario L5R 4G4

MSDS are available at the following website(s): <http://www.fujifilmusa.com/msds>
<http://www.fujifilm.ca/msds/search.do>

Company Phone Number U.S.A: 800-473-3854 Canada: 800-263-5018

Emergency Telephone Transport-CHEMTREC Inside NA: 800-424-9300
Transport CHEMTREC Outside NA: 703-527-3887
Transport-CANUTEC Inside Canada: 613-996-6666
Medical Emergency (24 hour): 877-935-7387

E-mail EHS@fujifilm.com

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1A
Reproductive Toxicity	Category 1B
Flammable liquids	Category 4

GHS Label elements, including precautionary statements

Danger

Hazard Statements

Causes skin irritation
 Causes serious eye irritation
 May cause an allergic skin reaction
 May damage fertility or the unborn child
 Combustible liquid

**Precautionary Statements****Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Wear protective gloves/protective clothing/eye protection/face protection

Response

If exposed or concerned: Get medical advice/attention
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 Take off contaminated clothing and wash before reuse
 If skin irritation or rash occurs: Get medical advice/attention
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not classified

Other hazards

Harmful to aquatic life with long lasting effects
 Harmful to aquatic life

Unknown Acute Toxicity

52.385% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Pentaerythritol tetraacrylate	4986-89-4	15-30%

Bisphenol-A epoxydiacrylate	55818-57-0	10-20%
Hydrous aluminum silicate	1332-58-7	3-7%
Trimethylolpropane triacrylate	15625-89-5	1-5%
2-hydroxy-2-methylpropiophenone	7473-98-5	1-5%
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropyl-1-one	71868-10-5	1-5%
2-Phenoxyethyl acrylate	48145-04-6	1-5%

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	Do not get in eyes, on skin, or on clothing. If symptoms persist, call a physician.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
Inhalation	Move to fresh air. If symptoms persist, call a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors.
Ingestion	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. Immediate medical attention is not required. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.
Protection of First-aiders	Use personal protective equipment.

Most important symptoms/effects, acute and delayed

May cause redness, itching, and pain. May cause allergic skin reaction.

Indication of immediate medical attention and special treatment needed, if necessary

May cause sensitization of susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO₂). Dry chemical. Alcohol resistant foam.

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Combustible liquid. May be ignited by heat, sparks or flames. May cause sensitization by skin contact.

Explosion Data

Sensitivity to Mechanical Impact none

Sensitivity to Static Discharge Yes

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing. Remove all sources of ignition.

Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Use personal protective equipment. Cover liquid spill with sand, earth or other noncombustible absorbent material. Take precautionary measures against static discharges. Pay attention to flashback. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Ensure adequate ventilation. Wear personal protective equipment. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Avoid exposure during pregnancy.

Conditions for safe storage, including any incompatibilities

Keep in properly labeled containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
Hydrous aluminum silicate	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable fraction	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust	
Trimethylolpropane triacrylate				1 mg/m ³ TWA

Exposure controls

Engineering Measures Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles. Face-shield.

Skin and body protection	Wear protective gloves/clothing.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene Considerations	When using do not eat, drink or smoke. Take off contaminated clothing and wash before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	According to product specification	Odor	Acrylates
Odor Threshold	Not available	Physical State @20°C	Liquid
pH	Not available	Molecular Weight	Not available
Specific Gravity	1.19 - 1.29	Autoignition temperature	Not available
Flash point	> 201 °F / > 94 °C	Boiling point / boiling range	300 °F / 149 °C
Decomposition temperature	Not available	Freezing Point	Not available
Melting point / melting range	Not available		
Flammability Limit in Air	Not available		
Oxidizing Properties	Not available	Explosive Property Details	Not available
Solubility	Insoluble in water	Partition coefficient	Not available
Evaporation rate	Not available	Vapor Pressure	<1 mm/Hg @ 20 C
Vapor density	Not available	Density	Not available
Weight per Gallon (lbs)	9.92-10.73	Actual VOC (lb/gal)	<0.22
VOC (lb/gal)	Not available	VOC (g/l)	Not available
Dynamic viscosity	Not available		
VOC Content California			
VOC Content of Material		<26 grams per liter	
VOC Content of Coating less Water and Exempt Solvents		<26 grams per liter	

10. STABILITY AND REACTIVITY

Reactivity

Stable under recommended storage conditions

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization may occur.

Conditions to Avoid

Extremes of temperature and direct sunlight. Heat, flames and sparks.

Incompatible Materials

Strong oxidizing agents, strong acids, and strong bases. Strong oxidizing agents.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Acute toxicity

Inhalation

May cause irritation of respiratory tract. May be harmful if inhaled.

Eyes

Risk of serious damage to eyes.

Skin

Causes burns. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May be harmful in contact with skin. May cause inflammation.

Ingestion

Ingestion may cause irritation to mucous membranes. May be harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	LC50 (lethal concentration)
Hydrous aluminum silicate	> 5 g/kg (Rat)		
Trimethylolpropane triacrylate		= 5000 mg/kg (Rabbit)	
2-hydroxy-2-methylpropiophenone	1694 mg/kg (rat)		

Information on toxicological effects

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation

Causes severe irritation and or burns.

Corrosivity

Causes burns.

Sensitization

May cause sensitization by skin contact.

Mutagenic Effects

No information available.

Reproductive Toxicity

Product is or contains a chemical which is a known or suspected reproductive hazard.

Carcinogenicity

This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form. The table below indicates whether each agency has listed any ingredient as a carcinogen.

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

A4 - Not Classifiable as a Human Carcinogen

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1: Carcinogenic to humans

Group 2A: Probably carcinogenic to humans

Group 2B: Possibly carcinogenic to humans

Group 3: Not classifiable as to its carcinogenicity to humans

OSHA: (Occupational Safety & Health Administration)

X - Present

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Chronic toxicity

Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. Experiments have shown reproductive toxicity effects on laboratory animals. Hydroxylamine sulfate: May cause methemoglobinemia. May cause adverse liver effects.

Target Organ Effects

Bladder, Blood, Kidney, Liver, Respiratory system, Skin, Eyes, Lymphatic System.

Aspiration hazard

No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	7447 mg/kg
ATEmix (dermal)	6120 mg/kg

ATE: Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

Contains no substances known to be hazardous to the environment or that are not degradable in wastewater treatment plants

Persistence and degradability

No information available.

Bioaccumulation

No information available

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations. Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>ICAO</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>ADR/RID</u>	Not regulated
<u>ADN</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Yes
DSL/NDSL	No
PICCS	No
EINECS/ELINCS	No
ENCS	No
IECSC	No
KECL	No
AICS	No

***Yes - All component(s) of this product are included or are exempt from listing on the inventory.**

***No - Indicates the component(s) of this product are either not listed or have not been determined to be listed on the inventory.**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

TSCA Sections 4, 5 and 12(b)

This product does not contain any chemicals regulated by TSCA Sections 4, 5 or 12(b).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS No	SARA 313 - Threshold Values %	Weight-%
2-Phenoxyethyl acrylate	48145-04-6	1.0	1-5%

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	Yes

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Hydrous aluminum silicate	X	X	X		X
2-Phenoxyethyl acrylate		X	X	X	

International Regulations

Canada - NDSL

This product does not contain any NDSL chemicals.

Mexico - Grade

Slight risk, Grade 1

Mexico - Carcinogen Status and Exposure Limits

Chemical Name	Carcinogen Status	Exposure Limits
Hydrous aluminum silicate		Mexico: TWA 10 mg/m ³ Mexico: STEL 20 mg/m ³

Other Regulations

No information available

CPSIA	Formulated to comply
CONEG	Formulated to comply
ASTM F-963	Formulated to comply
CHPA	Formulated to comply
ROHS	Formulated to comply
REACH/SVHC	Formulated to comply
EN-71	Formulated to comply

16. OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 1	Instability 1	Physical and chemical hazards -
HMIS	Health Hazard 2*	Flammability 1	Physical Hazard 1	Personal protection B

**Indicates a chronic health hazard.*

Prepared By FUJIFILM Environment, Health and Safety, phone: 800-473-3854

Revision Date 06-Nov-2014

Revision Note No information available

Disclaimer **The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

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