Safety Data Sheet
acc. to OSHA HCS

Printing date 01/08/2019 Reviewed on 01/08/2019

1 Identification

· **Product identifier**

· **Trade name: Series 750**

· **Article number: Series** 750

· **Application of the substance / the mixture** Printing inks

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
DECO TECHnology Group Inc.
PRINTCOLOR SCREEN AG
TEL (714) 639-3326
FAX (714) 639-2261

· **Information department:** Product safety department
· **Emergency telephone number:** 800-535-5053

2 Hazard(s) identification

· **Classification of the substance or mixture**

GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.

GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

· **Label elements**
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS02 GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labeling:**
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight > 700 - < 1100)
titanium dioxide
Carbon black
· **Hazard statements**
Flammable liquid and vapor.
Causes skin irritation.

(Contd. on page 2)

printcolor high performance inks

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/08/2019 Reviewed on 01/08/2019

Trade name: Series 750

(Contd. of page 1)

Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.

· **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from flames and hot surfaces. – No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves / eye protection / face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
Take off contaminated clothing and wash it before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Wash contaminated clothing before reuse.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**
· **NFPA ratings (scale 0 - 4)**

Health = 2
Fire = 2
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 2
Fire = 2
Reactivity = 0

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**		
CAS: 13463-67-7	titanium dioxide	25-50%
CAS: 25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight > 700 - < 1100)	25-50%
CAS: 112-07-2	2-butoxyethyl acetate	10-25%
CAS: 7727-43-7	barium sulphate, natural	2.5-10%

(Contd. on page 3)

(Contd. of page 2)

CAS: 108-65-6	2-methoxy-1-methylethyl acetate	2.5-10%
CAS: 1333-86-4	Carbon black	2.5-10%
CAS: 108-94-1	cyclohexanone	2.5-10%
CAS: 123-86-4	n-butyl acetate	1-2.5%

4 First-aid measures

· **Description of first aid measures**
· **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing:** If symptoms persist consult doctor.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Not required.
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
· **Protective Action Criteria for Chemicals**

· **PAC-1:**		
CAS: 13463-67-7	titanium dioxide	30 mg/m³
CAS: 112-07-2	2-butoxyethyl acetate	15 ppm
CAS: 7727-43-7	barium sulphate, natural	15 mg/m³
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
CAS: 1333-86-4	Carbon black	9 mg/m³
CAS: 108-94-1	cyclohexanone	60 ppm
CAS: 123-86-4	n-butyl acetate	5 ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	18 mg/m³

(Contd. on page 4)

(Contd. of page 3)

CAS: 1344-28-1	aluminium oxide	15 mg/m³
CAS: 108-83-8	2,6-dimethylheptan-4-one	75 ppm
CAS: 70657-70-4	2-methoxypropyl acetate	50 ppm

· **PAC-2:**

CAS: 13463-67-7	titanium dioxide	330 mg/m³
CAS: 112-07-2	2-butoxyethyl acetate	35 ppm
CAS: 7727-43-7	barium sulphate, natural	170 mg/m³
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
CAS: 1333-86-4	Carbon black	99 mg/m³
CAS: 108-94-1	cyclohexanone	830 ppm
CAS: 123-86-4	n-butyl acetate	200 ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	740 mg/m³
CAS: 1344-28-1	aluminium oxide	170 mg/m³
CAS: 108-83-8	2,6-dimethylheptan-4-one	330 ppm
CAS: 70657-70-4	2-methoxypropyl acetate	1,000 ppm

· **PAC-3:**

CAS: 13463-67-7	titanium dioxide	2,000 mg/m³
CAS: 112-07-2	2-butoxyethyl acetate	210 ppm
CAS: 7727-43-7	barium sulphate, natural	990 mg/m³
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
CAS: 1333-86-4	Carbon black	590 mg/m³
CAS: 108-94-1	cyclohexanone	5000* ppm
CAS: 123-86-4	n-butyl acetate	3000* ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m³
CAS: 1344-28-1	aluminium oxide	990 mg/m³
CAS: 108-83-8	2,6-dimethylheptan-4-one	2000* ppm
CAS: 70657-70-4	2-methoxypropyl acetate	5,000 ppm

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep receptacle tightly sealed.
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 5)

US

(Contd. of page 4)

· **Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

CAS: 112-07-2 2-butoxyethyl acetate	
REL	Long-term value: 33 mg/m³, 5 ppm
TLV	Long-term value: 130 mg/m³, 20 ppm
CAS: 7727-43-7 barium sulphate, natural	
PEL	Long-term value: 15* 5** mg/m³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m³ *total dust **respirable fraction
TLV	Long-term value: 5* mg/m³ *inhalable fraction; E
CAS: 108-65-6 2-methoxy-1-methylethyl acetate	
WEEL	Long-term value: 50 ppm
CAS: 1333-86-4 Carbon black	
PEL	Long-term value: 3.5 mg/m³
REL	Long-term value: 3.5* mg/m³ *0.1 in presence of PAHs;See Pocket Guide Apps.A+C
TLV	Long-term value: 3* mg/m³ *inhalable fraction
CAS: 108-94-1 cyclohexanone	
PEL	Long-term value: 200 mg/m³, 50 ppm
REL	Long-term value: 100 mg/m³, 25 ppm Skin
TLV	Long-term value: 50 mg/m³, 20 ppm Skin
CAS: 123-86-4 n-butyl acetate	
PEL	Long-term value: 710 mg/m³, 150 ppm
REL	Short-term value: 950 mg/m³, 200 ppm Long-term value: 710 mg/m³, 150 ppm
TLV	Short-term value: 712 mg/m³, 150 ppm Long-term value: 238 mg/m³, 50 ppm

· **Ingredients with biological limit values:**	
CAS: 108-94-1 cyclohexanone	
BEI	80 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 1.2-Cyclohexanediol with hydrolysis (nonspecific, semi-quantitative) 8 mg/L Medium: urine Time: end of shift Parameter: Cyclohexanol with hydrolysis (nonspecific, semi-quantitative)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.

(Contd. on page 6)

(Contd. of page 5)

Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Butyl rubber, BR

· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Fluid
Color:	According to product specification
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 140 °C (>284 °F)
· **Flash point:**	63 °C (145.4 °F) (Abel Pensky)
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	280 °C (536 °F)
· **Decomposition temperature:**	Not determined.
· **Auto igniting:**	Product is not selfigniting.

(Contd. on page 7)

(Contd. of page 6)

· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	1.7 Vol %
Upper:	8.4 Vol %
· **Vapor pressure at 20 °C (68 °F):**	0.4 hPa (0.3 mm Hg)
· **Density:**	Not determined.
· **Relative density**	Not determined.
· **Vapor density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
VOC content:	22.8 % 513.8 g/l / 4.29 lb/gal
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
CAS: 13463-67-7 titanium dioxide		
Oral	LD50	>20,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)
CAS: 112-07-2 2-butoxyethyl acetate		
Oral	LD50	2,400 mg/kg (rat)
Dermal	LD50	1,580 mg/kg (rabbit)

· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitization:** Sensitization possible through skin contact.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

(Contd. on page 8)

(Contd. of page 7)

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
CAS: 13463-67-7	titanium dioxide	2B
CAS: 1333-86-4	Carbon black	2B
CAS: 108-94-1	cyclohexanone	3
CAS: 7631-86-9	silicon dioxide, chemically prepared	3
CAS: 1330-20-7	xylene	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**	
· **DOT, ADR, IMDG, IATA**	UN1210
· **UN proper shipping name**	
· **DOT**	Printing ink
· **ADR**	1210 PRINTING INK
· **IMDG, IATA**	PRINTING INK

(Contd. on page 9)

(Contd. of page 8)

· **Transport hazard class(es)**

· **DOT**

· **Class**	3 Flammable liquids
· **Label**	3

· **ADR, IMDG, IATA**

· **Class**	3 Flammable liquids
· **Label**	3
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	III
· **Environmental hazards:**	
· **Marine pollutant:**	No
· **Special precautions for user**	Warning: Flammable liquids
· **Danger code (Kemler):**	30
· **EMS Number:**	F-E,S-D
· **Stowage Category**	A
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **IMDG**	
· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **UN "Model Regulation":**	UN 1210 PRINTING INK, 3, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

CAS: 112-07-2	2-butoxyethyl acetate
CAS: 7727-43-7	barium sulphate, natural
CAS: 1344-28-1	aluminium oxide

(Contd. on page 10)

(Contd. of page 9)

· TSCA (Toxic Substances Control Act):	
CAS: 13463-67-7	titanium dioxide
CAS: 112-07-2	2-butoxyethyl acetate
CAS: 7727-43-7	barium sulphate, natural
CAS: 108-65-6	2-methoxy-1-methylethyl acetate
CAS: 1333-86-4	Carbon black
CAS: 108-94-1	cyclohexanone
CAS: 123-86-4	n-butyl acetate
CAS: 7631-86-9	silicon dioxide, chemically prepared
CAS: 1344-28-1	aluminium oxide
CAS: 108-83-8	2,6-dimethylheptan-4-one

· TSCA new (21st Century Act) (Substances not listed)	
CAS: 25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight > 700 - < 1100)

· **Proposition 65**

· Chemicals known to cause cancer:	
CAS: 13463-67-7	titanium dioxide
CAS: 1333-86-4	Carbon black

· Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:
None of the ingredients is listed.

· **Cancerogenity categories**

· EPA (Environmental Protection Agency)		
CAS: 7727-43-7	barium sulphate, natural	D, CBD(inh), NL(oral)
CAS: 1330-20-7	xylene	I

· TLV (Threshold Limit Value established by ACGIH)		
CAS: 13463-67-7	titanium dioxide	A4
CAS: 112-07-2	2-butoxyethyl acetate	A3
CAS: 1333-86-4	Carbon black	A4
CAS: 108-94-1	cyclohexanone	A3
CAS: 1330-20-7	xylene	A4
CAS: 1344-28-1	aluminium oxide	A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)	
CAS: 13463-67-7	titanium dioxide
CAS: 1333-86-4	Carbon black

· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

GHS02 GHS07 GHS08

· **Signal word** Warning

(Contd. on page 11)

(Contd. of page 10)

· **Hazard-determining components of labeling:**
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight > 700 - < 1100)
titanium dioxide
Carbon black
· **Hazard statements**
Flammable liquid and vapor.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
· **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from flames and hot surfaces. – No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves / eye protection / face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
Take off contaminated clothing and wash it before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Wash contaminated clothing before reuse.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product safety department
· **Contact:** hse@printcolor.ch
· **Date of preparation / last revision** 01/08/2019 / 2
· **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)

(Contd. on page 12)

printcolor high performance inks

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/08/2019 Reviewed on 01/08/2019

Trade name: Series 750

(Contd. of page 11)

HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Liq. 3: Flammable liquids – Category 3
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2