Safety Data Sheet
acc. to OSHA HCS

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

1 Identification

· **Product identifier**

· **Trade name: Series 711**

· **Article number: Series** 711

· **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**

GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.

Flam. Liq. 4 H227 Combustible liquid.

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


GHS05 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
titanium dioxide
4-Hydroxybutanoic acid lactone
Carbon black
· **Hazard statements**
Combustible liquid.
Causes serious eye damage.
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.
Wear protective gloves/protective clothing/eye protection/face protection.

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If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
IF exposed or concerned: Get medical advice/attention.
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 = 3
Fire = 2
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = *3
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: 4435-53-4	3-methoxybutyl acetate	10-25%
CAS: 123-42-2	4-hydroxy-4-methylpentan-2-one	2.5-10%
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	2.5-10%
CAS: 1333-86-4	Carbon black	2.5-10%
CAS: 64742-95-6	Solvent naphtha (petroleum), light arom.	2.5-10%
CAS: 54839-24-6	2-ethoxy-1-methylethyl acetate	2.5-10%
CAS: 1569-02-4	1-ethoxypropan-2-ol	1-2.5%
CAS: 123-86-4	n-butyl acetate	1-2.5%

· **Additional information:**
Der Benzolgehalt als Verunreinigung im Solvent Naphtha ist <0.1%. Somit ist keine extra Etikettierung erforderlich.

4 First-aid measures

· **Description of first aid measures**
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then 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.

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· **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**
Wear protective equipment. Keep unprotected persons away.
· **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).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
· **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: 123-42-2	4-hydroxy-4-methylpentan-2-one	150 ppm
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	3.6 mg/m³
CAS: 1333-86-4	Carbon black	9 mg/m³
CAS: 123-86-4	n-butyl acetate	5 ppm
CAS: 107-98-2	1-methoxy-2-propanol	100 ppm
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	18 mg/m³
CAS: 120-51-4	Benzyl benzoate	5.7 mg/m³
CAS: 71-36-3	butan-1-ol	60 ppm
CAS: 7664-38-2	phosphoric acid	3 mg/m³
CAS: 1344-28-1	aluminium oxide	15 mg/m³
CAS: 108-83-8	2,6-dimethylheptan-4-one	75 ppm
CAS: 108-94-1	cyclohexanone	60 ppm
CAS: 124-68-5	2-amino-2-methylpropanol	17 mg/m³
CAS: 91-20-3	naphthalene	15 ppm
CAS: 70657-70-4	2-methoxypropyl acetate	50 ppm

· **PAC-2:**		
CAS: 13463-67-7	titanium dioxide	330 mg/m³
CAS: 123-42-2	4-hydroxy-4-methylpentan-2-one	350 ppm
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	39 mg/m³
CAS: 1333-86-4	Carbon black	99 mg/m³
CAS: 123-86-4	n-butyl acetate	200 ppm

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CAS: 107-98-2	1-methoxy-2-propanol	160 ppm
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	740 mg/m³
CAS: 120-51-4	Benzyl benzoate	63 mg/m³
CAS: 71-36-3	butan-1-ol	800 ppm
CAS: 7664-38-2	phosphoric acid	30 mg/m³
CAS: 1344-28-1	aluminium oxide	170 mg/m³
CAS: 108-83-8	2,6-dimethylheptan-4-one	330 ppm
CAS: 108-94-1	cyclohexanone	830 ppm
CAS: 124-68-5	2-amino-2-methylpropanol	190 mg/m³
CAS: 91-20-3	naphthalene	83 ppm
CAS: 70657-70-4	2-methoxypropyl acetate	1,000 ppm

· **PAC-3:**

CAS: 13463-67-7	titanium dioxide	2,000 mg/m³
CAS: 123-42-2	4-hydroxy-4-methylpentan-2-one	2100* ppm
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	310 mg/m³
CAS: 1333-86-4	Carbon black	590 mg/m³
CAS: 123-86-4	n-butyl acetate	3000* ppm
CAS: 107-98-2	1-methoxy-2-propanol	660 ppm
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m³
CAS: 120-51-4	Benzyl benzoate	380 mg/m³
CAS: 71-36-3	butan-1-ol	8000** ppm
CAS: 7664-38-2	phosphoric acid	150 mg/m³
CAS: 1344-28-1	aluminium oxide	990 mg/m³
CAS: 108-83-8	2,6-dimethylheptan-4-one	2000* ppm
CAS: 108-94-1	cyclohexanone	5000* ppm
CAS: 124-68-5	2-amino-2-methylpropanol	570 mg/m³
CAS: 91-20-3	naphthalene	500 ppm
CAS: 70657-70-4	2-methoxypropyl acetate	5,000 ppm

7 Handling and storage

· **Handling:**
· **Precautions for safe handling** 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:** Store away from foodstuffs.
· **Further information about storage conditions:** None.
· **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.

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· **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: 123-42-2 4-hydroxy-4-methylpentan-2-one	
PEL	Long-term value: 240 mg/m³, 50 ppm
REL	Long-term value: 240 mg/m³, 50 ppm
TLV	Long-term value: 238 mg/m³, 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: 1569-02-4 1-ethoxypropan-2-ol	
REL	Skin
TLV	Short-term value: NIC-850 mg/m³, NIC-200 ppm Long-term value: NIC-213 mg/m³, NIC-50 ppm NIC-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

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

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· **Breathing equipment:** Not required.
· **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.

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· **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:	> 150 °C (>302 °F)
· **Flash point:**	63 °C (145.4 °F) (Abel Pensky)
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	410 °C (770 °F)
· **Decomposition temperature:**	Not determined.
· **Auto igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure:**	Not determined.
· **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:	15.1 % 281.4 g/l / 2.35 lb/gal
· **Other information**	No further relevant information available.

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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: 64742-95-6 Solvent naphtha (petroleum), light arom.		
Oral	LD50	3,592 mg/kg (rat)
Dermal	LD50	3,160 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** Irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
CAS: 13463-67-7	titanium dioxide	2B
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	3
CAS: 1333-86-4	Carbon black	2B
CAS: 1330-20-7	xylene	3
CAS: 7631-86-9	silicon dioxide, chemically prepared	3
CAS: 108-94-1	cyclohexanone	3
CAS: 91-20-3	naphthalene	2B

· **NTP (National Toxicology Program)**		
CAS: 91-20-3	naphthalene	R

· **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.

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· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Ecotoxical effects:**
· **Remark:** Harmful to fish
· **Additional ecological information:**
· **General notes:**
Harmful to aquatic organisms
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, ADN, IMDG, IATA**	Void
· **UN proper shipping name** · **DOT, ADR, ADN, IMDG, IATA**	Void
· **Transport hazard class(es)**	
· **DOT, ADR, ADN** · **Class**	Void
· **IMDG, IATA** · **Class**	Void Not restricted good
· **Packing group** · **DOT, ADR, IMDG, IATA**	Void
· **Environmental hazards:** · **Marine pollutant:**	No
· **Special precautions for user**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	Void

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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: 71-36-3	butan-1-ol
CAS: 7664-38-2	phosphoric acid
CAS: 1344-28-1	aluminium oxide
CAS: 91-20-3	naphthalene

· **TSCA (Toxic Substances Control Act):**	
CAS: 13463-67-7	titanium dioxide
CAS: 4435-53-4	3-methoxybutyl acetate
CAS: 623-84-7	propane-1,2-diyl diacetate
CAS: 123-42-2	4-hydroxy-4-methylpentan-2-one
CAS: 96-48-0	4-Hydroxybutanoic acid lactone
CAS: 1333-86-4	Carbon black
CAS: 123-86-4	n-butyl acetate
CAS: 107-98-2	1-methoxy-2-propanol
CAS: 27138-31-4	oxydipropyl dibenzoate
CAS: 108-65-6	2-methoxy-1-methylethyl acetate
CAS: 19224-26-1	propane-1,2-diyl dibenzoate
CAS: 5131-66-8	3-butoxypropan-2-ol
CAS: 61791-15-9	Kokosalkylamin mit EO, Acetat
CAS: 77-92-9	citric acid
CAS: 7631-86-9	silicon dioxide, chemically prepared
CAS: 61791-14-8	Cocosfettaminoxethylat
CAS: 120-51-4	Benzyl benzoate
CAS: 71-36-3	butan-1-ol
CAS: 7664-38-2	phosphoric acid
CAS: 1344-28-1	aluminium oxide
CAS: 108-83-8	2,6-dimethylheptan-4-one
CAS: 108-94-1	cyclohexanone
CAS: 68611-44-9	Kieselsäure hydrophobiert hochdisperse
CAS: 124-68-5	2-amino-2-methylpropanol
CAS: 91-20-3	naphthalene
CAS: 7732-18-5	water, distilled, conductivity or of similar purity

· **TSCA new (21st Century Act) (Substances not listed)**	
CAS: 64742-95-6	Solvent naphtha (petroleum), light arom.
CAS: 54839-24-6	2-ethoxy-1-methylethyl acetate
CAS: 1569-02-4	1-ethoxypropan-2-ol

· **Proposition 65**

· **Chemicals known to cause cancer:**	
CAS: 13463-67-7	titanium dioxide
CAS: 1333-86-4	Carbon black
CAS: 91-20-3	naphthalene

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· **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: 1330-20-7	xylene	I
CAS: 71-36-3	butan-1-ol	D
CAS: 91-20-3	naphthalene	C, CBD

· **TLV (Threshold Limit Value established by ACGIH)**

CAS: 13463-67-7	titanium dioxide	A4
CAS: 1333-86-4	Carbon black	A4
CAS: 1330-20-7	xylene	A4
CAS: 1344-28-1	aluminium oxide	A4
CAS: 108-94-1	cyclohexanone	A3
CAS: 91-20-3	naphthalene	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**

GHS05 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
titanium dioxide
4-Hydroxybutanoic acid lactone
Carbon black
· **Hazard statements**
Combustible liquid.
Causes serious eye damage.
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.
Wear protective gloves/protective clothing/eye protection/face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
IF exposed or concerned: Get medical advice/attention.
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.

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· **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 / 7
· **Abbreviations and acronyms:**
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)
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
Flam. Liq. 4: Flammable liquids – Category 4
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Carc. 2: Carcinogenicity – Category 2