Safety Data Sheet
acc. to OSHA HCS

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

1 Identification

· **Product identifier**

· **Trade name: Series 420**

· **Article number: Series** 420

· **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.

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

GHS08

· **Signal word** Warning

· **Hazard-determining components of labeling:**
titanium dioxide
Carbon black
· **Hazard statements**
Suspected of causing cancer.
· **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves.
IF exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**

Health = 0
Fire = 1
Reactivity = 0

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· **HMIS-ratings (scale 0 - 4)**

Health = 0
Fire = 1
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	10-25%
CAS: 34590-94-8	Dipropylene glycol monomethyl ether	2.5-10%
CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	2.5-10%
CAS: 1333-86-4	Carbon black	1-2.5%

4 First-aid measures

· **Description of first aid measures**
· **General information:** No special measures required.
· **After inhalation:** Seek medical treatment 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.
· **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:** Dilute with plenty of water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**		
CAS: 13463-67-7	titanium dioxide	30 mg/m³
CAS: 34590-94-8	Dipropylene glycol monomethyl ether	150 ppm
CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	30 ppm
CAS: 1333-86-4	Carbon black	9 mg/m³
CAS: 124-68-5	2-amino-2-methylpropanol	17 mg/m³
CAS: 121-44-8	triethylamine	1 ppm
CAS: 107-98-2	1-methoxy-2-propanol	100 ppm
CAS: 111-76-2	2-butoxyethanol	60 ppm
CAS: 122-99-6	2-Phenoxyethanol	1.5 ppm

· **PAC-2:**		
CAS: 13463-67-7	titanium dioxide	330 mg/m³
CAS: 34590-94-8	Dipropylene glycol monomethyl ether	1700* ppm
CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	33 ppm
CAS: 1333-86-4	Carbon black	99 mg/m³
CAS: 124-68-5	2-amino-2-methylpropanol	190 mg/m³
CAS: 121-44-8	triethylamine	170 ppm
CAS: 107-98-2	1-methoxy-2-propanol	160 ppm
CAS: 111-76-2	2-butoxyethanol	120 ppm
CAS: 122-99-6	2-Phenoxyethanol	16 ppm

· **PAC-3:**		
CAS: 13463-67-7	titanium dioxide	2,000 mg/m³
CAS: 34590-94-8	Dipropylene glycol monomethyl ether	9900** ppm
CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	200 ppm
CAS: 1333-86-4	Carbon black	590 mg/m³
CAS: 124-68-5	2-amino-2-methylpropanol	570 mg/m³
CAS: 121-44-8	triethylamine	1,000 ppm
CAS: 107-98-2	1-methoxy-2-propanol	660 ppm
CAS: 111-76-2	2-butoxyethanol	700 ppm
CAS: 122-99-6	2-Phenoxyethanol	97 ppm

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Prevent formation of aerosols.
No special measures required.
· **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:** Protect from frost.
· **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

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

· **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 remaining constituent has no known exposure limits.

CAS: 34590-94-8 Dipropylene glycol monomethyl ether	
PEL	Long-term value: 600 mg/m³, 100 ppm Skin
REL	Short-term value: 900 mg/m³, 150 ppm Long-term value: 600 mg/m³, 100 ppm Skin
TLV	Short-term value: 909 mg/m³, 150 ppm Long-term value: 606 mg/m³, 100 ppm Skin
CAS: 112-34-5 2-(2-butoxyethoxy)ethanol	
TLV	Long-term value: 67.5* mg/m³, 10* ppm *Inhalable fraction and vapor
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

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

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
· **Breathing equipment:** Not required.
· **Protection of hands:** Not required.
· **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:**
Natural rubber, NR
· **Eye protection:**

Goggles recommended during refilling.

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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 at 20 °C (68 °F):**	8
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)
· **Flash point:**	101 °C (213.8 °F) (Abel Pensky)
· **Flammability (solid, gaseous):**	Not applicable.
· **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 at 20 °C (68 °F):**	23 hPa (17.3 mm Hg)
· **Density:**	Not determined.
· **Relative density**	Not determined.
· **Vapor density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
VOC content:	40.7 % 351.1 g/l / 2.93 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.

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11 Toxicological information

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

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
CAS: 13463-67-7	titanium dioxide	2B
CAS: 1333-86-4	Carbon black	2B
CAS: 111-76-2	2-butoxyethanol	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.
· **Ecotoxical effects:**
· **Remark:** Harmful to fish
· **Additional ecological information:**
· **General notes:**
Harmful to aquatic organisms
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **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.

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· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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

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: 112-34-5	2-(2-butoxyethoxy)ethanol
CAS: 121-44-8	triethylamine
CAS: 111-76-2	2-butoxyethanol
CAS: 122-99-6	2-Phenoxyethanol

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **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.

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printcolor high performance inks

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

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**		
CAS: 111-76-2	2-butoxyethanol	NL

· **TLV (Threshold Limit Value established by ACGIH)**		
CAS: 13463-67-7	titanium dioxide	A4
CAS: 1333-86-4	Carbon black	A4
CAS: 121-44-8	triethylamine	A4
CAS: 111-76-2	2-butoxyethanol	A3

· **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**

GHS08

· **Signal word** Warning

· **Hazard-determining components of labeling:**
titanium dioxide
Carbon black
· **Hazard statements**
Suspected of causing cancer.
· **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves.
IF exposed or concerned: Get medical advice/attention.
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:**
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)

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HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
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
Carc. 2: Carcinogenicity – Category 2