

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/08/2019

Reviewed on 01/07/2019

1 Identification

- **Product identifier**
- **Trade name: Series 792**
- **Article number: Series 792**
- **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.
Repr. 2 H361 Suspected of damaging fertility or the unborn child.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

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:**
titanium dioxide
xylene
Carbon black
1-dodecycl-2-pyrrolidone
- **Hazard statements**
Flammable liquid and vapor.

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- Causes serious eye irritation.
- May cause an allergic skin reaction.
- Suspected of causing cancer.
- Suspected of damaging fertility or the unborn child.
- May cause damage to organs through prolonged or repeated exposure.

• **Precautionary statements**

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat/sparks/open flames/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.
- Do not breathe 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).
- Get medical advice/attention if you feel unwell.
- 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: 54839-24-6	2-ethoxy-1-methylethyl acetate	10-25%
CAS: 7727-43-7	barium sulphate, natural	2.5-10%

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CAS: 1333-86-4	Carbon black	2.5-10%
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	1-2.5%
CAS: 1330-20-7	xylene	1-2.5%
CAS: 2687-96-9	1-dodecyl-2-pyrrolidone	<0.5%
CAS: 7397-62-8	butyl glycollate	<0.5%

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.
- **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, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **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:**
Inform respective authorities in case of seepage into water course or sewage system.
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).
Do not flush with water or aqueous cleansing agents
- **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/m ³
CAS: 7727-43-7	barium sulphate, natural	15 mg/m ³
CAS: 1333-86-4	Carbon black	9 mg/m ³
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	3.6 mg/m ³
CAS: 7631-86-9	silicon dioxide, chemically prepared	18 mg/m ³
CAS: 122-99-6	2-Phenoxyethanol	1.5 ppm
CAS: 123-42-2	4-hydroxy-4-methylpentan-2-one	150 ppm

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CAS: 108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
CAS: 124-68-5	2-amino-2-methylpropanol	17 mg/m ³
CAS: 108-10-1	4-methylpentan-2-one	75 ppm
CAS: 7664-38-2	phosphoric acid	3 mg/m ³

· **PAC-2:**

CAS: 13463-67-7	titanium dioxide	330 mg/m ³
CAS: 7727-43-7	barium sulphate, natural	170 mg/m ³
CAS: 1333-86-4	Carbon black	99 mg/m ³
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	39 mg/m ³
CAS: 7631-86-9	silicon dioxide, chemically prepared	740 mg/m ³
CAS: 122-99-6	2-Phenoxyethanol	16 ppm
CAS: 123-42-2	4-hydroxy-4-methylpentan-2-one	350 ppm
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
CAS: 124-68-5	2-amino-2-methylpropanol	190 mg/m ³
CAS: 108-10-1	4-methylpentan-2-one	500 ppm
CAS: 7664-38-2	phosphoric acid	30 mg/m ³

· **PAC-3:**

CAS: 13463-67-7	titanium dioxide	2,000 mg/m ³
CAS: 7727-43-7	barium sulphate, natural	990 mg/m ³
CAS: 1333-86-4	Carbon black	590 mg/m ³
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	310 mg/m ³
CAS: 7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m ³
CAS: 122-99-6	2-Phenoxyethanol	97 ppm
CAS: 123-42-2	4-hydroxy-4-methylpentan-2-one	2100* ppm
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
CAS: 124-68-5	2-amino-2-methylpropanol	570 mg/m ³
CAS: 108-10-1	4-methylpentan-2-one	3000* ppm
CAS: 7664-38-2	phosphoric acid	150 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **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.

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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: 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: 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: 1330-20-7 xylene

PEL Long-term value: 435 mg/m³, 100 ppm

REL Short-term value: 655 mg/m³, 150 ppm
Long-term value: 435 mg/m³, 100 ppm

TLV Short-term value: 651 mg/m³, 150 ppm
Long-term value: 434 mg/m³, 100 ppm
BEI

· **Ingredients with biological limit values:**

CAS: 1330-20-7 xylene

BEI 1.5 g/g creatinine
Medium: urine
Time: end of shift
Parameter: Methylhippuric acids

· **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.

· **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.

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- **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: Pasty
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: 158 °C (316.4 °F)

· **Flash point:** 56 °C (132.8 °F) (Abel Pensky)

· **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: 0.8 Vol %
Upper: 12.7 Vol %

· **Vapor pressure at 20 °C (68 °F):** 3 hPa (2.3 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: 3.5 %
74.2 g/l / 0.62 lb/gal

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· **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)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

CAS: 13463-67-7	titanium dioxide	2B
CAS: 1333-86-4	Carbon black	2B
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	3
CAS: 1330-20-7	xylene	3
CAS: 7631-86-9	silicon dioxide, chemically prepared	3
CAS: 108-10-1	4-methylpentan-2-one	2B

· **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.
- **Ecotoxic effects:**
- **Remark:** Harmful to fish

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- **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, IMDG, IATA | UN1210 |
| · UN proper shipping name | |
| · DOT | Printing ink |
| · ADR | 1210 PRINTING INK |
| · IMDG, IATA | PRINTING INK |
| · Transport hazard class(es) | |
| · DOT | |
| |  |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| <hr style="border-top: 1px dashed #000;"/> | |
| · 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 |

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· 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: 7727-43-7	barium sulphate, natural
CAS: 122-99-6	2-Phenoxyethanol
CAS: 108-10-1	4-methylpentan-2-one
CAS: 7664-38-2	phosphoric acid

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

CAS: 13463-67-7	titanium dioxide
CAS: 7727-43-7	barium sulphate, natural
CAS: 39317-41-4	Copolymer mit Vinylchlorid/Vinylacetat; Acrylsäuremonoester mit Propylenglykol
CAS: 1333-86-4	Carbon black
CAS: 96-48-0	4-Hydroxybutanoic acid lactone
CAS: 7631-86-9	silicon dioxide, chemically prepared
CAS: 2687-96-9	1-dodecycl-2-pyrrolidone
CAS: 122-99-6	2-Phenoxyethanol
CAS: 123-42-2	4-hydroxy-4-methylpentan-2-one
CAS: 7397-62-8	butyl glycollate
CAS: 108-65-6	2-methoxy-1-methylethyl acetate
CAS: 104-19-8	N,N,4-trimethylpiperazine-1-ethylamine
CAS: 77-92-9	citric acid
CAS: 3030-47-5	bis(2-dimethylaminoethyl)(methyl)amine
CAS: 124-68-5	2-amino-2-methylpropanol
CAS: 108-10-1	4-methylpentan-2-one
CAS: 7664-38-2	phosphoric acid
CAS: 7732-18-5	water, distilled, conductivity or of similar purity

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· **TSCA new (21st Century Act) (Substances not listed)**

CAS: 54839-24-6	2-ethoxy-1-methylethyl acetate
CAS: 1330-20-7	xylene

· **Proposition 65**

· **Chemicals known to cause cancer:**

CAS: 13463-67-7	titanium dioxide
CAS: 1333-86-4	Carbon black
CAS: 108-10-1	4-methylpentan-2-one

· **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:**

CAS: 108-10-1	4-methylpentan-2-one
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· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

CAS: 7727-43-7	barium sulphate, natural	D, CBD(inh), NL(oral)
CAS: 1330-20-7	xylene	I
CAS: 108-10-1	4-methylpentan-2-one	I

· **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

· **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

· **Hazard-determining components of labeling:**

titanium dioxide
xylene
Carbon black
1-dodecyl-2-pyrrolidone

· **Hazard statements**

Flammable liquid and vapor.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Obtain special instructions before use.

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Do not handle until all safety precautions have been read and understood.
 Keep away from heat/sparks/open flames/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.
 Do not breathe 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).
 Get medical advice/attention if you feel unwell.
 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 / 5
- **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
 BEI: Biological Exposure Limit
 Flam. Liq. 3: Flammable liquids – Category 3
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
 Skin Sens. 1: Skin sensitisation – Category 1
 Carc. 2: Carcinogenicity – Category 2
 Repr. 2: Reproductive toxicity – Category 2
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2