# Safety Data Sheet
## acc. to OSHA HCS

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

## 1 Identification

· **Product identifier**

· **Trade name: Series 712**

· **Article number: Series** 712

· **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 Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

· **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
Solvent naphtha (petroleum), light arom.
Carbon black
Hydrocarbon, C10, aromatics, <1% naphthalene
isobutyl methacrylate
· **Hazard statements**
Flammable liquid and vapor.
May cause an allergic skin reaction.

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Suspected of causing cancer.
May cause respiratory irritation. May cause drowsiness or dizziness.

· **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
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.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves / eye protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF exposed or concerned: Get medical advice/attention.
Call a poison center/doctor if you feel unwell.
Specific treatment (see on this label).
If skin irritation or rash occurs: 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 container tightly closed.
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 = 0
Fire = 2
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**


Health = 0
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: 64742-95-6 | Solvent naphtha (petroleum), light arom. | 25-50% |
| CAS: 13463-67-7 | titanium dioxide | 10-25% |
| CAS: 1189173-42-9 | Hydrocarbon, C10, aromatics, <1% naphthalene | 10-25% |
| CAS: 108-65-6 | 2-methoxy-1-methylethyl acetate | 2.5-10% |
| CAS: 1333-86-4 | Carbon black | 2.5-10% |
| CAS: 97-86-9 | isobutyl methacrylate | <0.5% |



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## 4 First-aid measures

· **Description of first aid measures**
· **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
· **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:**
Mouth respiratory protective device.
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).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
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/m³ |
| CAS: 108-65-6 | 2-methoxy-1-methylethyl acetate | 50 ppm |
| CAS: 1333-86-4 | Carbon black | 9 mg/m³ |
| CAS: 7631-86-9 | silicon dioxide, chemically prepared | 18 mg/m³ |
| CAS: 21645-51-2 | Aluminiumhydroxid | 8.7 mg/m³ |
| CAS: 108-90-7 | chlorobenzene | 10 ppm |

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| | | |
|---|---|---|
| CAS: 70657-70-4 | 2-methoxypropyl acetate | 50 ppm |

· **PAC-2:**

| | | |
|---|---|---|
| CAS: 13463-67-7 | titanium dioxide | 330 mg/m³ |
| CAS: 108-65-6 | 2-methoxy-1-methylethyl acetate | 1,000 ppm |
| CAS: 1333-86-4 | Carbon black | 99 mg/m³ |
| CAS: 7631-86-9 | silicon dioxide, chemically prepared | 740 mg/m³ |
| CAS: 21645-51-2 | Aluminiumhydroxid | 73 mg/m³ |
| CAS: 108-90-7 | chlorobenzene | 150 ppm |
| CAS: 70657-70-4 | 2-methoxypropyl acetate | 1,000 ppm |

· **PAC-3:**

| | | |
|---|---|---|
| CAS: 13463-67-7 | titanium dioxide | 2,000 mg/m³ |
| CAS: 108-65-6 | 2-methoxy-1-methylethyl acetate | 5000* ppm |
| CAS: 1333-86-4 | Carbon black | 590 mg/m³ |
| CAS: 7631-86-9 | silicon dioxide, chemically prepared | 4,500 mg/m³ |
| CAS: 21645-51-2 | Aluminiumhydroxid | 440 mg/m³ |
| CAS: 108-90-7 | chlorobenzene | 400 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:**
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.

· **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: 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<br>*0.1 in presence of PAHs;See Pocket Guide Apps.A+C |

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| | |
|---|---|
| TLV | Long-term value: 3* mg/m³<br>*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:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
· **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:**
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:** | Pasty |
| **Color:** | According to product specification |
| · **Odor:** | Characteristic |
| · **Change in condition** | |
| **Melting point/Melting range:** | Undetermined. |
| **Boiling point/Boiling range:** | > 150 °C (>302 °F) |
| · **Flash point:** | 44 °C (111.2 °F) (Abel Pensky) |
| · **Ignition temperature:** | 315 °C (599 °F) |
| · **Auto igniting:** | Product is not selfigniting. |
| · **Danger of explosion:** | Product does not present an explosion hazard. |

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| | |
|---|---|
| · **Explosion limits:** | |
| **Lower:** | 0.7 Vol % |
| **Upper:** | 7.5 Vol % |
| · **Vapor pressure at 20 °C (68 °F):** | 5 hPa (3.8 mm Hg) |
| · **Density:** | Not determined. |
| · **Solubility in / Miscibility with** | |
| **Water:** | Not miscible or difficult to mix. |
| · **Viscosity:** | |
| **Dynamic:** | Not determined. |
| **VOC content:** | 32.6 %<br>565.4 g/l / 4.72 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: 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:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful

· **Carcinogenic categories**

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

| | | |
|---|---|---|
| CAS: 13463-67-7 | titanium dioxide | 2B |
| CAS: 1333-86-4 | Carbon black | 2B |
| CAS: 7631-86-9 | silicon dioxide, chemically prepared | 3 |

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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· **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 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, ENVIRONMENTALLY HAZARDOUS |
| · **IMDG** | PRINTING INK (Solvent naphtha (petroleum), light arom., Hydrocarbon, C10, aromatics, <1% naphthalene), MARINE POLLUTANT |
| · **IATA** | PRINTING INK |
| · **Transport hazard class(es)** | |
| · **DOT** | |


| | |
|---|---|
| · **Class** | 3 Flammable liquids |

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| | |
|---|---|
| · **Label** | 3 |
| · **ADR, IMDG** | |
|  | |
| · **Class** | 3 Flammable liquids |
| · **Label** | 3 |
| · **IATA** | |
|  | |
| · **Class** | 3 Flammable liquids |
| · **Label** | 3 |
| · **Packing group** | |
| · **DOT, ADR, IMDG, IATA** | III |
| · **Environmental hazards:** | Product contains environmentally hazardous substances: Solvent naphtha (petroleum), light arom. |
| · **Marine pollutant:** | Symbol (fish and tree) |
| · **Special marking (ADR):** | Symbol (fish and tree) |
| · **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<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · **IMDG** | |
| · **Limited quantities (LQ)** | 5L |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · **UN "Model Regulation":** | UN 1210 PRINTING INK, 3, III, ENVIRONMENTALLY HAZARDOUS |

## 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: 108-90-7 | chlorobenzene |

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| · **TSCA (Toxic Substances Control Act):** | |
|---|---|
| CAS: 13463-67-7 | titanium dioxide |
| CAS: 108-65-6 | 2-methoxy-1-methylethyl acetate |
| CAS: 68609-36-9 | Chloriertes Polyolefin, modifiziert |
| CAS: 1333-86-4 | Carbon black |
| CAS: 7631-86-9 | silicon dioxide, chemically prepared |
| CAS: 8002-74-2 | Paraffin waxes and Hydrocarbon waxes |
| CAS: 97-86-9 | isobutyl methacrylate |
| CAS: 21645-51-2 | Aluminiumhydroxid |
| CAS: 61789-01-3 | epoxidiertes Öl |
| CAS: 108-90-7 | chlorobenzene |

| · **TSCA new (21st Century Act) (Substances not listed)** | |
|---|---|
| CAS: 64742-95-6 | Solvent naphtha (petroleum), light arom. |
| CAS: 1189173-42-9 | Hydrocarbon, C10, aromatics, <1% naphthalene |

· **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: 108-90-7 | chlorobenzene | D |

| · **TLV (Threshold Limit Value established by ACGIH)** | | |
|---|---|---|
| CAS: 13463-67-7 | titanium dioxide | A4 |
| CAS: 1333-86-4 | Carbon black | A4 |
| CAS: 108-90-7 | chlorobenzene | 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**

GHS02 GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labeling:**
titanium dioxide
Solvent naphtha (petroleum), light arom.
Carbon black

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Hydrocarbon, C10, aromatics, <1% naphthalene
isobutyl methacrylate

· **Hazard statements**
Flammable liquid and vapor.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause respiratory irritation. May cause drowsiness or dizziness.

· **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
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.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves / eye protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF exposed or concerned: Get medical advice/attention.
Call a poison center/doctor if you feel unwell.
Specific treatment (see on this label).
If skin irritation or rash occurs: 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 container tightly closed.
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
Flam. Liq. 3: Flammable liquids – Category 3

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Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3