

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/08/2019

Reviewed on 01/08/2019

1 Identification

- **Product identifier**
- **Trade name: Series 784**
- **Article number: Series 784**
- **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

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 2 H351 Suspected of causing cancer.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

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



GHS05



GHS08

- **Signal word** Danger

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

butyl glycollate
titanium dioxide

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Carbon black

4-isocyanatosulphonyltoluene

2-hydroxyethyl methacrylate

methyl methacrylate

• **Hazard statements**

Flammable liquid and vapor.

Causes serious eye damage.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

• **Precautionary statements**

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.

Take precautionary measures against static discharge.

Avoid breathing vapours.

Wear protective gloves / eye protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

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.

Specific treatment (see on this label).

If skin irritation or rash occurs: Get medical advice/attention.

If experiencing respiratory symptoms: Call a poison center/doctor.

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 = 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: 54839-24-6	2-ethoxy-1-methylethyl acetate	10-25%
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	10-25%

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CAS: 13463-67-7	titanium dioxide	10-25%
CAS: 4435-53-4	3-methoxybutyl acetate	2.5-10%
CAS: 7397-62-8	butyl glycollate	2.5-10%
CAS: 1333-86-4	Carbon black	1-2.5%
CAS: 4083-64-1	4-isocyanatosulphonyltoluene	<1%
CAS: 868-77-9	2-hydroxyethyl methacrylate	<0.5%
CAS: 80-62-6	methyl methacrylate	<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:** 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: 108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
CAS: 13463-67-7	titanium dioxide	30 mg/m ³
CAS: 1333-86-4	Carbon black	9 mg/m ³
CAS: 123-86-4	n-butyl acetate	5 ppm
CAS: 868-77-9	2-hydroxyethyl methacrylate	1.9 mg/m ³
CAS: 80-62-6	methyl methacrylate	17 ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	18 mg/m ³

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CAS: 100-42-5	styrene	20 ppm
CAS: 70657-70-4	2-methoxypropyl acetate	50 ppm
CAS: 1344-28-1	aluminium oxide	15 mg/m ³
CAS: 7664-38-2	phosphoric acid	3 mg/m ³
CAS: 108-83-8	2,6-dimethylheptan-4-one	75 ppm
CAS: 91-20-3	naphthalene	15 ppm

· **PAC-2:**

CAS: 108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
CAS: 13463-67-7	titanium dioxide	330 mg/m ³
CAS: 1333-86-4	Carbon black	99 mg/m ³
CAS: 123-86-4	n-butyl acetate	200 ppm
CAS: 868-77-9	2-hydroxyethyl methacrylate	21 mg/m ³
CAS: 80-62-6	methyl methacrylate	120 ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	740 mg/m ³
CAS: 100-42-5	styrene	130 ppm
CAS: 70657-70-4	2-methoxypropyl acetate	1,000 ppm
CAS: 1344-28-1	aluminium oxide	170 mg/m ³
CAS: 7664-38-2	phosphoric acid	30 mg/m ³
CAS: 108-83-8	2,6-dimethylheptan-4-one	330 ppm
CAS: 91-20-3	naphthalene	83 ppm

· **PAC-3:**

CAS: 108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
CAS: 13463-67-7	titanium dioxide	2,000 mg/m ³
CAS: 1333-86-4	Carbon black	590 mg/m ³
CAS: 123-86-4	n-butyl acetate	3000* ppm
CAS: 868-77-9	2-hydroxyethyl methacrylate	1,000 mg/m ³
CAS: 80-62-6	methyl methacrylate	570 ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m ³
CAS: 100-42-5	styrene	1100* ppm
CAS: 70657-70-4	2-methoxypropyl acetate	5,000 ppm
CAS: 1344-28-1	aluminium oxide	990 mg/m ³
CAS: 7664-38-2	phosphoric acid	150 mg/m ³
CAS: 108-83-8	2,6-dimethylheptan-4-one	2000* ppm
CAS: 91-20-3	naphthalene	500 ppm

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.

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- **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/m ³
REL	Long-term value: 3.5* mg/m ³ *0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV	Long-term value: 3* mg/m ³ *inhalable fraction
CAS: 80-62-6 methyl methacrylate	
PEL	Long-term value: 410 mg/m ³ , 100 ppm
REL	Long-term value: 410 mg/m ³ , 100 ppm
TLV	Short-term value: 410 mg/m ³ , 100 ppm Long-term value: 205 mg/m ³ , 50 ppm DSEN

- **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.
- **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

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· **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:** 50-55 °C (122-131 °F) (Abel Pensky)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 315 °C (599 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower: 1.5 Vol %
Upper: 10.8 Vol %

· **Vapor pressure at 20 °C (68 °F):** 3.4 hPa (2.6 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: 20.1 %

· **Other information** 285.2 g/l / 2.38 lb/gal
No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.

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- **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: 7397-62-8 butyl glycollate

Oral	LD50	4,595 mg/kg (rat)
Inhalative	LC50/4 h	6.2 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:**

- **Carcinogenic categories**

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

CAS: 13463-67-7	titanium dioxide	2B
CAS: 1333-86-4	Carbon black	2B
CAS: 80-62-6	methyl methacrylate	3
CAS: 7631-86-9	silicon dioxide, chemically prepared	3
CAS: 100-42-5	styrene	2B
CAS: 1330-20-7	xylene	3
CAS: 91-20-3	naphthalene	2B

- **NTP (National Toxicology Program)**

CAS: 100-42-5	styrene	R
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.
- **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 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.

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- **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, IATA	UN1210
· ADR, ADN, IMDG	Void
· UN proper shipping name	
· DOT	Printing ink
· ADR, ADN, IMDG	Void
· IATA	PRINTING INK
· Transport hazard class(es)	
· DOT	
	
· Class	3 Flammable liquids
· Label	3
· ADR	
· Class	Void
	Not restricted good <450l according to ADR 2.2.3.1.5
· ADN/R Class:	Void
· IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, IATA	III
· ADR, IMDG	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Stowage Category	A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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· **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: 80-62-6	methyl methacrylate
CAS: 100-42-5	styrene
CAS: 1344-28-1	aluminium oxide
CAS: 7664-38-2	phosphoric acid
CAS: 91-20-3	naphthalene

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

CAS: 108-65-6	2-methoxy-1-methylethyl acetate
CAS: 13463-67-7	titanium dioxide
CAS: 4435-53-4	3-methoxybutyl acetate
CAS: 7397-62-8	butyl glycollate
CAS: 1333-86-4	Carbon black
CAS: 4083-64-1	4-isocyanatosulphonyltoluene
CAS: 123-86-4	n-butyl acetate
CAS: 868-77-9	2-hydroxyethyl methacrylate
CAS: 61791-15-9	Kokosalkylamin mit EO, Acetat
CAS: 80-62-6	methyl methacrylate
CAS: 7631-86-9	silicon dioxide, chemically prepared
CAS: 61791-14-8	Cocosfettaminoxethylat
CAS: 100-42-5	styrene
CAS: 1344-28-1	aluminium oxide
CAS: 7664-38-2	phosphoric acid
CAS: 108-83-8	2,6-dimethylheptan-4-one
CAS: 91-20-3	naphthalene

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

CAS: 54839-24-6 2-ethoxy-1-methylethyl acetate

· **Proposition 65**

· **Chemicals known to cause cancer:**

CAS: 13463-67-7	titanium dioxide
CAS: 1333-86-4	Carbon black
CAS: 100-42-5	styrene
CAS: 91-20-3	naphthalene

· **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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· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

CAS: 80-62-6	methyl methacrylate	E, NL
CAS: 1330-20-7	xylene	I
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: 80-62-6	methyl methacrylate	A4
CAS: 100-42-5	styrene	A4
CAS: 1330-20-7	xylene	A4
CAS: 1344-28-1	aluminium oxide	A4
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**



GHS02 GHS05 GHS08

· **Signal word** Danger

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

butyl glycollate
titanium dioxide
Carbon black
4-isocyanatosulphonyltoluene
2-hydroxyethyl methacrylate
methyl methacrylate

· **Hazard statements**

Flammable liquid and vapor.
Causes serious eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.

· **Precautionary statements**

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.
Take precautionary measures against static discharge.
Avoid breathing vapours.
Wear protective gloves / eye protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Immediately call a poison center/doctor.
 IF exposed or concerned: Get medical advice/attention.
 Specific treatment (see on this label).
 If skin irritation or rash occurs: Get medical advice/attention.
 If experiencing respiratory symptoms: Call a poison center/doctor.
 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:**
 - 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)
 - HMS: 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
 - Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 - Resp. Sens. 1: Respiratory sensitisation – Category 1
 - Skin Sens. 1: Skin sensitisation – Category 1
 - Carc. 2: Carcinogenicity – Category 2
 - Repr. 2: Reproductive toxicity – Category 2