Safety Data Sheet
acc. to OSHA HCS

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

1 Identification

· **Product identifier**

· **Trade name: Thinner**

· **Article number: Series** 700-017

· **Application of the substance / the mixture** Additive

· **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

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.


GHS07

Acute Tox. 4 H332 Harmful if inhaled.
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** Danger

· **Hazard-determining components of labeling:**
cyclohexanone
Solvent naphtha (petroleum), light arom.
n-butyl acetate
· **Hazard statements**
Flammable liquid and vapor.
Harmful if inhaled.
May cause respiratory irritation. May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.

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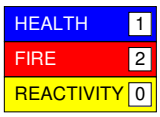
· **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing vapours.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves / eye protection.
If swallowed: Immediately call a poison center/doctor.
Do NOT induce vomiting.
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.
Call a poison center/doctor if you feel unwell.
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 = 1
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: 108-94-1	cyclohexanone	10-25%
CAS: 123-86-4	n-butyl acetate	10-25%
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	2.5-10%
CAS: 124-68-5	2-amino-2-methylpropanol	1-2.5%

4 First-aid measures

· **Description of first aid measures**
· **After inhalation:**
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
· **After skin contact:** Immediately rinse with water.

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· **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing:** Immediately call a 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.
· **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.
Keep away from ignition sources
· **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.
· **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: 108-94-1	cyclohexanone	60 ppm
CAS: 123-86-4	n-butyl acetate	5 ppm
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
CAS: 124-68-5	2-amino-2-methylpropanol	17 mg/m³
CAS: 120-51-4	Benzyl benzoate	5.7 mg/m³
CAS: 70657-70-4	2-methoxypropyl acetate	50 ppm

· **PAC-2:**		
CAS: 108-94-1	cyclohexanone	830 ppm
CAS: 123-86-4	n-butyl acetate	200 ppm
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
CAS: 124-68-5	2-amino-2-methylpropanol	190 mg/m³
CAS: 120-51-4	Benzyl benzoate	63 mg/m³
CAS: 70657-70-4	2-methoxypropyl acetate	1,000 ppm

· **PAC-3:**		
CAS: 108-94-1	cyclohexanone	5000* ppm

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CAS: 123-86-4	n-butyl acetate	3000* ppm
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
CAS: 124-68-5	2-amino-2-methylpropanol	570 mg/m³
CAS: 120-51-4	Benzyl benzoate	380 mg/m³
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:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Use explosion-proof apparatus / fittings and spark-proof tools.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Provide floor trough without outlet.
Prevent any seepage into the ground.
· **Information about storage in one common storage facility:** Store away from foodstuffs.
· **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
· **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: 108-94-1 cyclohexanone	
PEL	Long-term value: 200 mg/m³, 50 ppm
REL	Long-term value: 100 mg/m³, 25 ppm Skin
TLV	Long-term value: 50 mg/m³, 20 ppm 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
CAS: 108-65-6 2-methoxy-1-methylethyl acetate	
WEEL	Long-term value: 50 ppm

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· **Ingredients with biological limit values:**

CAS: 108-94-1 cyclohexanone

BEI	80 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 1.2-Cyclohexanediol with hydrolysis (nonspecific, semi-quantitative) 8 mg/L Medium: urine Time: end of shift Parameter: Cyclohexanol with hydrolysis (nonspecific, semi-quantitative)

· **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.
Immediately remove all soiled and contaminated clothing.
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:**

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.
· **Eye protection:**

Safety glasses

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Fluid
Color:	According to product specification
· **Odor:**	Characteristic

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· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	124 °C (255.2 °F)
· **Flash point:**	38 °C (100.4 °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:	0.7 Vol %
Upper:	9.4 Vol %
· **Vapor pressure at 20 °C (68 °F):**	10.7 hPa (8 mm Hg)
· **Density at 20 °C (68 °F):**	0.9 g/cm³ (7.51 lbs/gal)
· **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:	100.0 % 882.5 g/l / 7.36 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:**

· **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)
CAS: 108-94-1 cyclohexanone		
Oral	LD50	1,620 mg/kg (rat)
Dermal	LD50	948 mg/kg (rabbit)
Inhalative	LC50/4 h	8,000 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: 108-94-1	cyclohexanone	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:** Toxic for fish
· **Additional ecological information:**
· **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Also poisonous for fish and plankton in water bodies.
Toxic for 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.

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· **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 related material
· **ADR**	1210 PRINTING INK RELATED MATERIAL, ENVIRONMENTALLY HAZARDOUS
· **IMDG**	PRINTING INK RELATED MATERIAL (Solvent naphtha (petroleum), light arom.), MARINE POLLUTANT
· **IATA**	PRINTING INK RELATED MATERIAL
· **Transport hazard class(es)**	
· **DOT**	

· **Class**	3 Flammable liquids
· **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)

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· **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 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 RELATED MATERIAL, 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):**

None of the ingredients is listed.

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

CAS: 108-94-1	cyclohexanone
CAS: 123-86-4	n-butyl acetate
CAS: 108-65-6	2-methoxy-1-methylethyl acetate
CAS: 124-68-5	2-amino-2-methylpropanol
CAS: 120-51-4	Benzyl benzoate
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.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **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.

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· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**		
None of the ingredients is listed.		

· **TLV (Threshold Limit Value established by ACGIH)**		
CAS: 108-94-1	cyclohexanone	A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

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

GHS02 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
cyclohexanone
Solvent naphtha (petroleum), light arom.
n-butyl acetate
· **Hazard statements**
Flammable liquid and vapor.
Harmful if inhaled.
May cause respiratory irritation. May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.
· **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing vapours.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves / eye protection.
If swallowed: Immediately call a poison center/doctor.
Do NOT induce vomiting.
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.
Call a poison center/doctor if you feel unwell.
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 / 3

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· **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
Acute Tox. 4: Acute toxicity – Category 4
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration hazard – Category 1