Reviewed on 08/05/2022

# Safety Data Sheet acc. to OSHA HCS

Printing date 08/05/2022

#### **1** Identification

- Product identifier
- <sup>·</sup> Trade name: Series 786
- · Article number: Series 786
- · Application of the substance / the mixture Printing inks
- · Details of the supplier of the safety data sheet
- **Manufacturer/Supplier:** Printcolor AG Welschloh 299 CH-8965 Berikon Tel.: 0041 / 56 648 85 85 E-Mail: info@printcolor.ch
- · Information department: Product safety department
- Emergency telephone number: Tox Center Zürich: 0041 44 251 51 51

## 2 Hazard(s) identification



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	(Contd. of page 1)
Carbon black 2-methoxy-1-methylethyl acetate	
n-butvl acetate	
4-isocyanatosulphonyltoluene	
2-hydroxyethyl methacrylate	
· Hazard statements	
Flammable liquid and vapor.	
May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
May cause an allergic skin reaction.	
May cause drowsiness or dizziness.	
· Precautionary statements	
Use only non-sparking tools.	
Take precautionary measures against static discharge.	
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/sho	wer.
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	
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 CO2, powder or water spray to extinguish.	
Store in a well-ventilated place. Keep container tightly closed.	
Store locked up	
Dispose of contents/container in accordance with local/regional/national/international regulat	ions.
· Classification system:	
· NFPA ratings (scale 0 - 4)	
$\frac{1}{2}$ Fire = 2	
0 Reactivity = 0	
· HMIS-ratings (scale 0 - 4)	
HEALTH 0 Health = 0	
FIRE 2 Fire = 2	
REACTIVITY 0 Reactivity = 0	
· Other hazards	
Results of PBT and vPvB assessment	
· PBT: Not applicable.	
· <b>vPvB:</b> 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-<20%
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	≥10-<20%
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high performance inks

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		(Contd. of page 2)
CAS: 123-86-4	n-butyl acetate	2.5-10%
CAS: 4435-53-4	3-methoxybutyl acetate	2.5-10%
CAS: 34590-94-8	Dipropylene glycol monomethyl ether	2.5-10%
CAS: 1333-86-4	Carbon black	1-2.5%
CAS: 112-07-2	2-butoxyethyl acetate	1-2.5%
CAS: 4083-64-1	4-isocyanatosulphonyltoluene	≥0.1-<1%
CAS: 868-77-9	2-hydroxyethyl methacrylate	≥0.1-<0.5%
CAS: 111-76-2	2-butoxyethanol	≥0-<0.5%

### 4 First-aid measures

- · Description of first aid measures
- 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.

- 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: No special measures required.

### 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: No special measures required.
   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 9 for information on paragraph protection equipment.
  - 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<sup>3</sup>

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		(Contd. of page 3)
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
CAS: 123-86-4	n-butyl acetate	5 ppm
CAS: 34590-94-8	Dipropylene glycol monomethyl ether	150 ppm
CAS: 1333-86-4	Carbon black	9 mg/m³
CAS: 112-07-2	2-butoxyethyl acetate	15 ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	18 mg/m³
CAS: 868-77-9	2-hydroxyethyl methacrylate	1.9 mg/m³
CAS: 107-98-2	1-methoxy-2-propanol	100 ppm
CAS: 111-76-2	2-butoxyethanol	60 ppm
CAS: 1344-28-1	aluminium oxide	15 mg/m³
CAS: 80-62-6	methyl methacrylate	17 ppm
CAS: 78-83-1	butanol	150 ppm
CAS: 100-42-5	styrene	20 ppm
CAS: 70657-70-4	2-methoxypropyl acetate	50 ppm
CAS: 14808-60-7	Quartz (SiO2)	0.075 mg/m³
CAS: 102-82-9	tributylamine	0.049 ppm
· PAC-2:		
CAS: 13463-67-7	titanium dioxide	330 mg/m <sup>3</sup>
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
CAS: 123-86-4	n-butyl acetate	200 ppm
CAS: 34590-94-8	Dipropylene glycol monomethyl ether	1700* ppm
CAS: 1333-86-4	Carbon black	99 mg/m <sup>3</sup>
CAS: 112-07-2	2-butoxyethyl acetate	35 ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	740 mg/m <sup>3</sup>
CAS: 868-77-9	2-hydroxyethyl methacrylate	21 mg/m <sup>3</sup>
CAS: 107-98-2	1-methoxy-2-propanol	160 ppm
CAS: 111-76-2	2-butoxyethanol	120 ppm
CAS: 1344-28-1	aluminium oxide	170 mg/m <sup>3</sup>
CAS: 80-62-6	methyl methacrylate	120 ppm
CAS: 78-83-1	butanol	1,300 ppm
CAS: 100-42-5	styrene	130 ppm
CAS: 70657-70-4	2-methoxypropyl acetate	1,000 ppm
CAS: 14808-60-7	Quartz (SiO2)	33 mg/m <sup>3</sup>
CAS: 102-82-9	tributylamine	0.54 ppm
· PAC-3:		
CAS: 13463-67-7	titanium dioxide	2.000 mg/m <sup>3</sup>
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
CAS: 123-86-4	n-butyl acetate	3000* ppm
CAS: 34590-94-8	Dipropylene glycol monomethyl ether	mag **0099
CAS: 1333-86-4	Carbon black	590 mg/m <sup>3</sup>
CAS: 112-07-2	2-butoxyethyl acetate	210 ppm
CAS: 7631-86-9	silicon dioxide, chemically prepared	4.500 ma/m <sup>3</sup>
CAS: 868-77-9	2-hydroxyethyl methacrylate	1.000 mg/m <sup>3</sup>
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		(Contd. of page 4)
CAS: 107-98-2	1-methoxy-2-propanol	660 ppm
CAS: 111-76-2	2-butoxyethanol	700 ppm
CAS: 1344-28-1	aluminium oxide	990 mg/m <sup>3</sup>
CAS: 80-62-6	methyl methacrylate	570 ppm
CAS: 78-83-1	butanol	8000* ppm
CAS: 100-42-5	styrene	1100* ppm
CAS: 70657-70-4	2-methoxypropyl acetate	5,000 ppm
CAS: 14808-60-7	Quartz (SiO2)	200 mg/m <sup>3</sup>
CAS: 102-82-9	tributylamine	3.2 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.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- · 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.
- · Storage class: 3
- · 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: 1	108-65-6 2-methoxy-1-methylethyl acetate		
WEEL	Long-term value: 50 ppm		
CAS: 1	23-86-4 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: 150 ppm Long-term value: 50 ppm		
CAS: 3	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		
	(Contd. on page 6)		



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TLV	Long-term value: 50 ppm	
CAS:	1333-86-4 Carbon black	
PEL	Long-term value: 3.5 mg/m <sup>3</sup>	
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, A3	
CAS:	112-07-2 2-butoxyethyl acetate	
REL	Long-term value: 33 mg/m <sup>3</sup> , 5 ppm	
TLV	Long-term value: 20 ppm A3	
CAS:	111-76-2 2-butoxyethanol	
PEL	Long-term value: 240 mg/m³, 50 ppm Skin	
REL	Long-term value: 24 mg/m³, 5 ppm Skin	
TLV	Long-term value: 20 ppm BEI, A3	
· Ingred	lients with biological limit values:	
CAS:	111-76-2 2-butoxyethanol	
BEI 2	00 mg/g creatinine	
N	ledium: urine	
	Ime: end of shift	
Parameter: Butoxyacetic acid (BAA) (with hydrolysis)		
<ul> <li>Exposure controls</li> <li>Personal protective equipment:</li> <li>General protective and hygienic measures: Wash hands before breaks and at the end of work.</li> <li>Breathing equipment: Not required.</li> <li>Protection of hands:</li> </ul>		
IIIS IIII	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.

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· For the permanent contact of a maximum of 15 minutes gloves made of the following	) materials are
suitable:	

Butyl rubber, BR

• Eye protection:



Goggles recommended during refilling.

9 Physical and chemical properties		
· Information on basic physical and chemical properties		
· General Information		
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.	
Bolling point/Bolling range:	>140 C (>284 F)	
· Flash point:	44 °C (111.2 °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 at 20 °C (68 °F):	>1.49-<1.52 g/cm³ (>12.43-<12.68 lbs/gal)	
Relative density	Not determined.	
· Vapor density	Not determined.	
	Not determined.	
• Solubility in / Miscibility with Water:	Not miscible or difficult to mix.	
Partition coefficient (n-octanol/wat	er): Not determined.	
· Viscosity:		
Dynamic at 20 °C (68 °F):	4,000-8,000 mPas	
Kinematic:	Not determined.	
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		(Contd. of page 7)
Solvent separation test		
VOC content:	≥22.43-<22.69 %	
	>338-<344.8 g/l / >2.82-<2.88 lb/gal	
VOC (EC)	≥22.43-<22.69 %	
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:

Oral	LD50	13,100 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>21 mg/l (rat)

#### · Additional toxicological information:

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)			
CAS: 13463-67-7	titanium dioxide	2E	3
CAS: 1333-86-4	Carbon black	2B	3
CAS: 7631-86-9	silicon dioxide, chemically prepared	3	
CAS: 111-76-2	2-butoxyethanol	3	
CAS: 80-62-6	methyl methacrylate	3	
CAS: 100-42-5	styrene	2A	۸
CAS: 14808-60-7	Quartz (SiO2)	1	
· NTP (National Toxicology Program)			
CAS: 100-42-5	styrene	R	٢
CAS: 14808-60-7	Quartz (SiO2)	K	$\langle \rangle$
· OSHA-Ca (Occupational Safety & Health Administration)			
None of the ingredients is listed.			
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## **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.
- · 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.

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		
RANNEE LOSIO		
Class	3 Flammable liquids	
Label	3	
ADR		
Class	Void	



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· ADN/R Class:	Void	
·IATA		
· Class	3 Flammable liquids	
· Label	3	
· Packing group		
DOT, IATA	III	
· ADR, IMDG	Void	
· Environmental hazards:	Not applicable.	
<ul> <li>Special precautions for user</li> </ul>	Not applicable.	
<ul> <li>Transport in bulk according to Annex I MARPOL73/78 and the IBC Code</li> </ul>	l of Not applicable.	
· UN "Model Regulation":	Void	

# 15 Regulatory information

 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
 Sara

None of the ing	radiant is listed
None of the ing	
Section 313 (S	pecific toxic chemical listings):
CAS: 112-07-2	2-butoxyethyl acetate
CAS: 111-76-2	2-butoxyethanol
CAS: 1344-28-1	aluminium oxide
CAS: 80-62-6	methyl methacrylate
CAS: 100-42-5	styrene
TSCA (Toxic S	ubstances Control Act):
All components	have the value ACTIVE.
Hazardous Air	Pollutants
CAS: 80-62-6	methyl methacrylate
CAS: 100-42-5	styrene
<b>Proposition 65</b>	
Chemicals kno	wn to cause cancer:
CAS: 1333-86-4	Carbon black
CAS: 100-42-5	styrene
	wn to cause reproductive toxicity for females:
Chemicals kno	



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		(Contd. of page 10)
<sup>•</sup> Chemicals know	n to cause reproductive toxicity for males:	
None of the ingree	dients is listed.	
· Chemicals know	n to cause developmental toxicity:	
None of the ingree	lients is listed.	
· Cancerogenity ca	ategories	
· EPA (Environme	ntal Protection Agency)	
CAS: 111-76-2 2-	butoxyethanol	NL
CAS: 80-62-6 m	ethyl methacrylate	E, NL
· TLV (Threshold I	∟imit Value)	
CAS: 13463-67-7	titanium dioxide	A4
CAS: 1333-86-4	Carbon black	A4
CAS: 112-07-2	2-butoxyethyl acetate	A3
CAS: 111-76-2	2-butoxyethanol	A3
CAS: 1344-28-1	aluminium oxide	A4
CAS: 80-62-6	methyl methacrylate	A4
CAS: 100-42-5	styrene	A4
CAS: 14808-60-7	Quartz (SiO2)	A2
· NIOSH-Ca (Natio	nal Institute for Occupational Safety and Health)	
CAS: 13463-67-7	titanium dioxide	
CAS: 1333-86-4	Carbon black	
CAS: 14808-60-7	Quartz (SiO2)	

#### GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

#### · Hazard pictograms



#### · Signal word Danger

### · Hazard-determining components of labeling:

2-ethoxy-1-methylethyl acetate Carbon black 2-methoxy-1-methylethyl acetate n-butyl acetate

4-isocyanatosulphonyltoluene

2-hydroxyethyl methacrylate

## Hazard statements

Flammable liquid and vapor. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Suspected of causing cancer. May cause drowsiness or dizziness. • **Precautionary statements** 

#### Use only non-sparking tools. Take precautionary measures against static discharge.

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(Contd. of page 11) 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. Specific treatment (see on this label). Call a poison center/doctor if you feel unwell. 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 CO2, powder or water spray to extinguish. 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 08/05/2022 / -
- Abbreviations and acronyms: ADR: Accord relatif au transport international 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 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** Flammable Liquids 3: Flammable liquids - Category 3 Sensitization - Respiratory 1: Respiratory sensitisation - Category 1 Sensitization - Skin 1: Skin sensitisation - Category 1 Carcinogenicity 2: Carcinogenicity – Category 2 Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) - Category 3 us