

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Printing date 11/16/2023

Version: 3.0

Reviewed on 11/16/2023

1 Identification

Product identifier

Product name: ADApt G5/G6, UVInk, Magenta

Article number: I-4840-MA Application of the substance / the mixture: Printing inks

Details of the supplier of the safety data sheet

Direct Color Systems 99 Hammer Mill Rd. Rocky Hill, CT 06067-USA Manufacturer/Supplier: Direct Color Systems 99 Hammer Mill Rd. Rocky Hill, CT 06067-USA Emergency telephone number US: 24/7 CHEMTREC 1-800-424-9300 Emergency telephone number International: 24/7 CHEMTREC +1 703-527-3887

2 Hazard(s) identification

Classification of the substance or mixture

Acute Toxicity - Oral 4	H302 Harmful if swallowed.
Skin Corrosion 1C	H314 Causes severe skin burns and eye damage.
Eye Damage 1	H318 Causes serious eye damage.
Sensitization - Skin 1	H317 May cause an allergic skin reaction.
Carcinogenicity 1A	H350 May cause cancer.
Toxic to Reproduction 1B	H360 May damage fertility or the unborn child.

Label elements

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-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester Tetrahydrofurfuryl Acrylate nickel, 5,5'-azobis-2,4,6(1h,3h,5h)-pyrimidinetrione complexes 2-phenoxyethyl acrylate Neopentylglycol(PO)2 Diacrylate propylidynetrimethanol, propoxylated, esters with acrylic acid phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide 4,4'-isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

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H	lazard statements
Н	larmful if swallowed.
С	auses severe skin burns and eye damage.
N	Iay cause an allergic skin reaction.
N	Iay cause cancer.
N	Iay damage fertility or the unborn child.
P	recautionary statements
С	Obtain special instructions before use.
D	o not handle until all safety precautions have been read and understood.
D	o not breathe dusts or mists.
V	Vash thoroughly after handling.
D	to not eat, drink or smoke when using this product.
С	contaminated work clothing must not be allowed out of the workplace.
V	Vear protective gloves/protective clothing/eye protection/face protection.
If	swallowed: Call a poison center/doctor if you feel unwell.
If	swallowed: Rinse mouth. Do NOT induce vomiting.
If	on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
II	F INHALED: 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. Contir
ri	nsing.
Iı	nmediately call a poison center/doctor.
II	F exposed or concerned: Get medical advice/attention.
S	pecific treatment (see on this label).
If	skin irritation or rash occurs: Get medical advice/attention.
V	Vash contaminated clothing before reuse.
S	tore locked up.
D	Dispose of contents/container in accordance with local/regional/national/international regulations.
d	ditional information:

8.7 % of the mixture consists of component(s) of unknown toxicity.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

*

86273-46-3 2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester	≥ 25 - ≤ 50%
Acute Toxicity - Oral 4, H302; Sensitization - Skin 1, H317	
48145-04-6 2-phenoxyethyl acrylate	10 - 25%
Toxic to Reproduction 2, H361; Sensitization - Skin 1A, H317	
2399-48-6 Tetrahydrofurfuryl Acrylate	10 - 25%
Toxic to Reproduction 1B, H360; Skin Corrosion 1C, H314; Eye Damage 1, H318; Acute Toxicity - Oral 4, H302; Sensitization - Skin 1, H317; Flammable Liquids 4, H227	
84170-74-1 Neopentylglycol(PO)2 Diacrylate	≥ 2.5 - ≤ 10%
Sensitization - Skin 1, H317	
75980-60-8 Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	$\geq 2.5 - \leq 10\%$
Toxic to Reproduction 2, H361	
53879-54-2 propylidynetrimethanol, propoxylated, esters with acrylic acid	2.5 - 10%
Eye Irritation 2A, H319; Sensitization - Skin 1, H317	

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Product name: ADApt G5/G6, UVInk, Ma	genta	
162881-26-7 phenyl bis(2,4,6-trimethyl Sensitization - Skin 1A, H		2.5 - 10%
55818-57-0 4,4'-isopropylidenediphen esters with acrylic acid	ol, oligomeric reaction products with 1-chlo	oro-2,3-epoxypropane, ≥ 0 - ≤ 2.5%
Sensitization - Skin 1, H3	17	
71868-10-5 2-methyl-1-(4-methylthiop	phenyl)-2-morpholinopropan-1-one	≥ 0 - ≤ 2.5%
Toxic to Reproduction 1B	, H360; Acute Toxicity - Oral 4, H302	
119313-12-1 2-benzyl-2-dimethylamino	-4-morpholinobutyrophenone	≥0-≤2.5%
Toxic to Reproduction 1B	, H360	
68511-62-6 nickel, 5,5'-azobis-2,4,6(1)	n,3h,5h)-pyrimidinetrione complexes	≥0-≤2.5%
Carcinogenicity 1A, H350)	

4 First-aid measures

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a 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: Use fire fighting measures that suit the environment.

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.

Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

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).

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling **Safety Data Sheet** according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

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See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about protection against explosions and fires: Keep respiratory protective device available.

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 section 7.

Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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.

Store protective clothing separately.

Avoid contact with the eyes and skin.

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.

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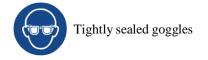
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Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



9 Physical and chemical properties .

Information on basic physical and cho General Information Appearance:	emical properties
Form: Color: Odor: Odor threshold:	Liquid Magenta Characteristic Not determined.
pH-value:	Not determined.
Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. Undetermined.
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not applicable.
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits: Lower: Upper:	Not determined. Not determined.
Vapor pressure:	Not determined.
Density: Relative density Vapor density Evaporation rate	Not determined. Not determined. Not determined. Not determined.
Solubility in / Miscibility with Water:	Fully miscible.
Partition coefficient (n-octanol/wate	er): Not determined.
Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
Other information	No further relevant information available.

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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.

1 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral LD50 1,100 - 1,114 mg/kg

86273-46-3 2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester

Oral LD50 500 mg/kg (ATE)

2399-48-6 Tetrahydrofurfuryl Acrylate

Oral LD50 928 mg/kg (rat)

53879-54-2 propylidynetrimethanol, propoxylated, esters with acrylic acid

Oral LD50 > 2,000 mg/kg (rat)

71868-10-5 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

Oral LD50 500 mg/kg (ATE)

Primary irritant effect:

on the skin: Strong caustic effect on skin and mucous membranes.

on the eye: Strong caustic effect.

Sensitization: Sensitization possible through skin contact.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic categories <u>IARC (International Agency for Research on Cancer)</u>

68511-62-6 nickel, 5,5'-azobis-2,4,6(1h,3h,5h)-pyrimidinetrione complexes: 1

119-61-9 benzophenone: 2B

108-88-3 Toluene: 3

15625-89-5 2,2-bis(acryloyloxymethyl)butyl acrylate: 2B

NTP (National Toxicology Program)

68511-62-6 nickel, 5,5'-azobis-2,4,6(1h,3h,5h)-pyrimidinetrione complexes: K

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. **Ecotoxical effects: Remark:** Harmful to fish Additional ecological information: **General notes:** Water hazard class 2 (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized. Danger to drinking water if even small quantities leak into the ground. Harmful to aquatic organisms **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. **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

UN-Number	
DOT	not regulated
IMDG, IATA	UN3082
UN proper shipping name	
DOT	not regulated
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Tetrahydrofurfuryl Acrylate), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Tetrahydrofurfuryl Acrylate)
Transport hazard class(es)	
DOT	
Class	not regulated
	-

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IMDG, IATA	
Class	9 Miscellaneous dangerous substances and articles
Label	9
Packing group	
DOT	not regulated
IMDG, IATA	III
Environmental hazards:	
Marine pollutant:	Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
Special precautions for user	Warning: Miscellaneous dangerous substances and articles
Hazard identification number (Kemler co	
EMS Number:	F-A,S-F
Stowage Category	А
Transport in bulk according to Annex II of	
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
UN "Model Regulation":	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-PHENOXYETHYL ACRYLATE, TETRAHYDROFURFURYL ACRYLATE), 9, 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 ingredients is listed.

Section 313 (Specific toxic chemical listings):

68511-62-6 nickel, 5,5'-azobis-2,4,6(1h,3h,5h)-pyrimidinetrione complexes

TSCA (Toxic Substances Control Act):

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

86273-46-3 2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester: ACTIVE

48145-04-6 2-phenoxyethyl acrylate: ACTIVE

84170-74-1 Neopentylglycol(PO)2 Diacrylate: ACTIVE

75980-60-8 Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide: ACTIVE

53879-54-2 propylidynetrimethanol, propoxylated, esters with acrylic acid: ACTIVE

162881-26-7 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide: ACTIVE

55818-57-0 4,4'-isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid: ACTIVE

71868-10-5 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one: ACTIVE

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oduct name: ADApt G5/G6, UVInk, N	Magenta	
119313-12-1 2-benzyl-2-dimethylam	nino-4-morpholinobutyrophenone: ACTIVE	
68511-62-6 nickel, 5,5'-azobis-2,4,6 Hazardous Air Pollutants	6(1h,3h,5h)-pyrimidinetrione complexes: ACTIV	Έ
108-88-3 Toluene		
67-56-1 methanol		
Proposition 65		
Chemicals known to cause ca	ncer:	
68511-62-6 nickel, 5,5'-azobis-2,4,60	(1h,3h,5h)-pyrimidinetrione complexes	
119-61-9 benzophenone		
15625-89-5 2,2-bis(acryloyloxymeth)		
	productive toxicity for females:	
80-05-7 bisphenol A		
	productive toxicity for males:	
	(1h,3h,5h)-pyrimidinetrione complexes	
<u>Chemicals known to cause de</u>		
	(1h,3h,5h)-pyrimidinetrione complexes	
108-88-3 Toluene		
67-56-1 methanol		
80-05-7 bisphenol A		
Carcinogenic categories EPA (Environmental Protecti	ion Agency)	
110-82-7 cyclohexane: I		
108-88-3 Toluene: II TLV (Threshold Limit Value))	
108-88-3 Toluene: A4		
	te for Occupational Safety and Health)	
68511-62-6 nickel, 5,5'-azobis-2,4,60	(1h,3h,5h)-pyrimidinetrione complexes	
GHS label elements The product i Hazard pictograms	is classified and labeled according to the Globally	Harmonized System (GHS).
GHS05 GHS07 GHS08		
Signal word Danger		
Hazard-determining componen	nts of labeling:	
2-Propenoic acid, 2-[2-(ethenylox		
Tetrahydrofurfuryl Acrylate		
nickel, 5,5'-azobis-2,4,6(1h,3h,5h))-pyrimidinetrione complexes	
2-phenoxyethyl acrylate		
Neopentylglycol(PO)2 Diacrylate propylidynetrimethanol, propoxy		
phenyl bis(2,4,6-trimethylbenzoy		
	gomeric reaction products with 1-chloro-2,3-epoxy	ypropane, esters with acrylic acid
Hazard statements		
Harmful if swallowed.		
Causes severe skin burns and eye May cause an allergic skin reaction		

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May cause cancer.
May damage fertility or the unborn child.
Precautionary statements
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dusts or mists.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
If swallowed: Rinse mouth. 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.
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.
Wash contaminated clothing before reuse.
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.

Relevant phrases

- H227 Combustible liquid.
- H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H350 May cause cancer.
- H360 May damage fertility or the unborn child.
- H361 Suspected of damaging fertility or the unborn child.
- **Contact:**

Date of preparation / last revision 11/16/2023

Abbreviations and acronyms:

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)
- 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

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Flammable Liquids 4: Flammable liquids - Category 4 Acute Toxicity - Oral 4: Acute toxicity - Category 4 Skin Corrosion 1C: Skin corrosion/irritation - Category 1C Eye Damage 1: Serious eye damage/eye irritation - Category 1 Eye Irritation 2A: Serious eye damage/eye irritation - Category 2A Sensitization - Skin 1: Skin sensitisation - Category 1 Sensitization - Skin 1A: Skin sensitisation - Category 1A Carcinogenicity 1A: Carcinogenicity - Category 1A Toxic to Reproduction 1B: Reproductive toxicity – Category 1B Toxic to Reproduction 2: Reproductive toxicity – Category 2 * Data compared to the previous version altered.