

Section 1. Identification

Product identifier

Product Identity Other means of identification Chromasphere UV Cyan Ink Not Applicable

Relevant identified uses of the substance or mixture and uses advised against

See Technical Data Sheet.

Details of the supplier of the safety data sheet

Company Name

Direct Color Systems 99 Hammermill Rd. Rocky Hill, CT 06067

Emergency 24 hour Emergency Telephone No. Customer Service:

24/7 CHEMTREC 800-424-9300 860-829-2244

Section 2. Hazard(s) identification

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Acute toxicity(oral), category 4;H302	Harmful if swallowed.
Skin corrosion/irritation category 2;H315	Causes skin irritation.
Serious eye damage / eye irritation, category	Causes serious eye irritation.
2;H319	
Skin sensitizer category 1;H317	May cause an allergic skin reaction.
Specific target organ toxicity, repeated	Causes damage to organs through
exposure category 1;H372	prolonged or repeated exposure.
Aquatic toxicity (chronic), category 3;H412	Harmful to aquatic life with long lasting
	effects.



Label elements





Danger

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

[Prevention]

P260 Do not breathe dust, fume, mist, vapors or spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves, eye protection, and face protection.

[Response]

P301+312 IF SWALLOWED: Call a POISON CENTER, doctor or physician if you feel unwell. P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER, doctor or physician if you feel unwell.

P314 Get Medical advice or attention if you feel unwell.

P330 Rinse mouth.

P333+313 If skin irritation or a rash occurs: Get medical advice or attention.

P337+313 If eye irritation persists: Get medical advice or attention.



P362+364 Take off contaminated clothing and wash it before reuse.
[Storage]
No GHS storage statements
[Disposal]
P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards

This product contains no PBT/vPvB/vPvM chemicals. This product contains no endocrine disrupting chemicals.

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
2-propenoic acid, 3,3,5-trimethylcyclohexyl ester CAS Number: 86178-38-3 Synonyms: 2-propenoic acid, 3,3,5-trimethylcyclohexyl ester	10 - 30		No data available
Pentaerythritol, ethoxylated, esters with acrylic acid CAS Number: 51728-26-8 Synonyms: Poly(oxy-1,2-ethanediyl), .alphahydroomega[(1-oxo-2- propen-1-yl)oxy]-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1)		Serious eye damage / eye irritation, category 2A;H319 Skin corrosion/irritation category 2;H315	No data available
2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester CAS Number: 86273-46-3 Synonyms: VEEA		Acute toxicity(oral), category 4;H302 Skin sensitizer category 1;H317 Aquatic toxicity (chronic), category 3;H412	No data available
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate CAS Number: 84434-11-7 Synonyms: Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate		Skin sensitizer category 1B;H317 Aquatic toxicity (chronic), category 2;H411	No data available
2h-azepin-2-one, 1-ethenylhexahydro- CAS Number: 2235-00-9 Synonyms: Azepin-2-one, 1-ethenylhexahydro-, Monomer		Acute toxicity(oral), category 4;H302 Serious eye damage / eye irritation, category 2;H319 Acute toxicity(dermal), category 4;H312 Specific target organ toxicity, repeated exposure category 1;H372	No data available
2-Propenoic acid, (tetrahydro-2-furanyl)methyl ester CAS Number: 2399-48-6 Synonyms: PROPENOIC ACID, (TETRAHYDRO-2-FURANYL)METHYL ESTER		Skin corrosion/irritation category 2;H315 Serious eye damage / eye irritation, category 2;H319	No data available
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.'-(2,2-dimethyl-1,3- propanediyl)bis[.omega[(1-oxo-2-propenyl)oxy] -	3 - 7	Not Classified	No data



Ingredient/Chemical Designations	Weight	GHS Classification	Notes
	%		
CAS Number: 84170-74-1			available
Synonyms: Propoxylated Neopentyl Glycol Diacrylate Ester			
Ethoxylated trimethylolpropane triacrylate	3 - 7	Serious eye damage / eye irritation,	
CAS Number: 28961-43-5		category 2;H319	N
Synonyms: Trimethylpropane, ethoxylated, acrylic acid ester		Skin sensitizer category 1;H317	No data available

The actual concentration or concentration range is withheld as a trade secret. *PBT/vPvB - PBT, vPvM or vPvB-substance. The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention.
	Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or
	stopped, give artificial respiration. If unconscious, place in the recovery position
	and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids
	apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or
	use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce
	vomiting.

Most important symptoms and effects, both acute and delayed

No specific symptom data available.		
Treat symptomatically. See section 2 for further details.		
Causes serious eye irritation.		
May cause an allergic skin reaction. Causes skin irritation.		
Harmful if swallowed.		

Section 5. Fire-fighting measures



Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray. Unsuitable extinguishing media: Do not use; water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available. Do not breathe dust, fume, mist, vapors or spray.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8). Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Environmental precautions

Do not allow spills to enter drains or waterways.

Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.



Section 7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage. See section 2 for further details. - [Prevention]

Conditions for safe storage, including any incompatibilities

Incompatible materials: No available information See section 2 for further details. - [Storage]

Specific end use(s)

No available information

Section 8. Exposure controls / personal protection

Control parameters

Exposure

CAS No.	Ingredient	Source	Value
2235-00-9	00-9 2h-azepin-2-one, 1-ethenylhexahydro-		No Established
			Limit
			No Established
		-	Limit
		NIOSH	No Established
			Limit
2399-48-6	2-Propenoic acid, (tetrahydro-2-furanyl)methyl ester	OSHA	No Established
			Limit
		ACGIH	No Established
			Limit
		NIOSH	No Established
			Limit
28961-43-	Ethoxylated trimethylolpropane triacrylate	OSHA	No Established
5			Limit
		ACGIH	No Established
			Limit
		NIOSH	No Established
			Limit
51728-26-	Pentaerythritol, ethoxylated, esters with acrylic acid	OSHA	No Established
8			Limit
		ACGIH	No Established
			Limit
		NIOSH	No Established
			Limit
84170-74-	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.'-(2,2-dimethyl-1,3-propanediyl)bis[.omega[(1-	OSHA	No Established
1	oxo-2-propenyl)oxy] -		Limit
		ACGIH	No Established

Direct Color Systems

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CAS No.	Ingredient	Source Value
		Limit
		NIOSH No Established
		Limit
84434-11-	Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate	OSHA No Established
7		Limit
		ACGIH No Established
		Limit
		NIOSH No Established
		Limit
86178-38-	2-propenoic acid, 3,3,5-trimethylcyclohexyl ester	OSHA No Established
3		Limit
		ACGIH No Established
		Limit
		NIOSH No Established
		Limit
86273-46-	2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester	OSHA No Established
3		Limit
		ACGIH No Established
		Limit
		NIOSH No Established
		Limit

Exposure

controls	
Respiratory	If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
Eyes	Protective safety glasses recommended
Skin	Avoid skin contact. Wear PVC or rubber gloves to keep skin contact to a
	minimum. Refer to the manufacturer's recommendations regarding the suitability of any gloves used.
Engineering	Provide adequate ventilation. Where reasonably practicable this should be
Controls	achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

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Physical State	Liquid
Color	Cyan
Odor	Ester-like
Melting point / freezing point	No available information
Initial boiling point and boiling range	257°F 125°C
Flammability (solid, gas)	No available information
Upper/lower flammability or explosive	Lower Explosive Limit:No available
limits	information
	Upper Explosive Limit:No available
	information
Flash Point	437°F 225°C, Test method: (Open/Close
	cup)
Auto-ignition temperature	No available information
Decomposition temperature	No available information
pH	No available information
Viscosity (cSt)	25cP @ 25C
Solubility in Water	No available information
Partition coefficient n-octanol/water (Log	No available information
Kow)	
Vapor pressure (Pa)	No available information
Relative Density	No available information
Vapor Density	No available information
Evaporation rate (Ether = 1)	No available information
Oxidising properties	No available information
Explosive properties	No available information

Other information

No other relevant information.

Section 10. Stability and reactivity

Reactivity

Hazardous Polymerization will not occur. **Chemical stability** Stable under normal circumstances. **Possibility of hazardous reactions** No available information



Conditions to avoid Avoid high temperatures and contact with incompatible material Incompatible materials No available information Hazardous decomposition products No hazardous decomposition data available.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
2-propenoic acid, 3,3,5-trimethylcyclohexyl ester - (86178-38-	No data	No data	No data	No data	No data
3)	available.	available.	available.	available.	available.
Pentaerythritol, ethoxylated, esters with acrylic acid - (51728-	No data	No data	No data	No data	No data
26-8)	available.	available.	available.	available.	available.
2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester -	No data	No data	No data	No data	No data
(86273-46-3)	available.	available.	available.	available.	available.
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate - (84434-11-	> 5,000.00, Rat -	> 2,000.00, Rat	No data	No data	No data
7)	Category: NA	- Category: NA	available.	available.	available.
2h-azepin-2-one, 1-ethenylhexahydro (2235-00-9)	1,114.00, Rat - Category: 4	1,800.00, Rabbit - Category: 4	No data available.	No data available.	No data available.
2-Propenoic acid, (tetrahydro-2-furanyl)methyl ester - (2399-	No data	No data	No data	No data	No data
48-6)	available.	available.	available.	available.	available.
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.'-(2,2-					



Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
dimethyl-1,3-propanediyl)bis[.omega[(1-oxo-2-propenyl)oxy]	> 5,000.00, Rat -	> 2,000.00, Rat	No data	No data	No data
(84170-74-1)	Category: NA	- Category: NA	available.	available.	available.
Ethoxylated trimethylolpropane triacrylate - (28961-43-5)	>2,000.00, Rat -	No data	No data	No data	No data
	Category: 5	available.	available.	available.	available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
2235-00-	2h-azepin-2-one, 1-ethenylhexahydro-	OSHA	Regulated Carcinogen: No;
9		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group
			2b: No; Group 3: No;
		ACGIH	No Established Limit
2399-48-	2-Propenoic acid, (tetrahydro-2-furanyl)methyl ester	OSHA	Regulated Carcinogen: No;
6		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group
			2b: No; Group 3: No;
		ACGIH	No Established Limit
28961-	Ethoxylated trimethylolpropane triacrylate	OSHA	Regulated Carcinogen: No;
43-5		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group
			2b: No; Group 3: No;
		ACGIH	No Established Limit
51728-	Pentaerythritol, ethoxylated, esters with acrylic acid	OSHA	Regulated Carcinogen: No;
26-8		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group
			2b: No; Group 3: No;
		ACGIH	No Established Limit
84170-	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.'-(2,2-dimethyl-1,3-	OSHA	Regulated Carcinogen: No;
74-1	propanediyl)bis[.omega[(1-oxo-2-propenyl)oxy] -	NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group
			2b: No; Group 3: No;
		ACGIH	No Established Limit
84434-	Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate		Regulated Carcinogen: No;
11-7		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group
			2b: No; Group 3: No;
		ACGIH	No Established Limit
86178-	2-propenoic acid, 3,3,5-trimethylcyclohexyl ester	OSHA	Regulated Carcinogen: No;
38-3		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group
			2b: No; Group 3: No;
			No Established Limit
86273-	2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester		Regulated Carcinogen: No;
46-3		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group
			2b: No; Group 3: No;
		ACGIH	No Established Limit



Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)		Not Applicable
Acute toxicity (inhalation)		Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye	2	Causes serious eye irritation.
damage/irritation		
Respiratory sensitization		Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity		Not Applicable
Carcinogenicity		Not Applicable
Reproductive toxicity		Not Applicable
STOT-single exposure		Not Applicable
STOT-repeated exposure	1	Causes damage to organs through prolonged or
		repeated exposure.
Aspiration hazard		Not Applicable

Possible routes of entry:

Symptoms and effects, both acute and delayed:

No specific symptom data available. Treat symptomatically.

EyesCauses serious eye irritation.SkinMay cause an allergic skin reaction. Causes skin irritation.IngestionHarmful if swallowed.

Section 12. Ecological information

Toxicity

Harmful to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
2-propenoic acid, 3,3,5-trimethylcyclohexyl ester - (86178-38-3)			
	No data	No data	No data available.



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Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L	
	available.	available.		
Pentaerythritol, ethoxylated, esters with acrylic acid - (51728-26-8)	No data available.	No data available.	No data available.	
2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester - (86273-46-3)	No data available.	No data available.	No data available.	
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate - (84434-11-7)	1.89, Danio rerio	2.26, Daphnia magna	1.01, Desmodesmus subspicatus	
2h-azepin-2-one, 1-ethenylhexahydro (2235-00-9)	318.00, Danio rerio	101.00, Daphnia magna	101.00, Desmodesmus subspicatus	
2-Propenoic acid, (tetrahydro-2-furanyl)methyl ester - (2399-48-6)	No data available.	No data available.	No data available.	
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.'-(2,2-dimethyl-1,3- propanediyl)bis[.omega[(1-oxo-2-propenyl)oxy] (84170-74-1)	2.70, Danio rerio	37.00, Daphnia magna	11.00, Pseudokirchneriella subcapitata	
Ethoxylated trimethylolpropane triacrylate - (28961-43-5)	1.95, Danio rerio	70.70, Daphnia magna	2.20, Desmodesmus subspicatus	

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

No available information

Mobility in soil

No available information

Results of PBT and vPvB assessment

This product contains no PBT/vPvB/vPvM chemicals.

Other adverse effects

No available information

Section 13. Disposal considerations



Waste treatment methods

Observe all federal, provincial and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA	
UN number	Not Regulated	Not Regulated	Not Applicable	
UN proper	Not Regulated	Not Regulated	Not Regulated	
shipping name				
Transport hazard	I DOT Hazard Class:Not	IMDG:Not Regulated	Air Class:Not	
class(es)	Regulated	Sub Class:Not	Regulated	
	Sub Class:Not Applicable	Applicable	Sub Class:Not Applicable	
Packing group	Not Regulated	Not Regulated	Not Regulated	

Environmental hazards

Marine Pollutant: No; Special precautions for user

No available information

Section 15. Regulatory information

RegulatoryThe regulatory data in Section 15 is not intended to be all-inclusive, onlyOverviewselected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Toxic Substance Control Act (TSCA)

CAS	Ingredient	Toxic Substance	Comments	Status
Number		Control Act (TSCA)		
0002399-	2-Propenoic acid, (tetrahydro-2-furanyl)methyl ester	Yes		ACTIVE
48-6				



CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0086273- 46-3	2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester	Yes	PMN; S; 5E	ACTIVE
40-3 0086178- 38-3	2-propenoic acid, 3,3,5-trimethylcyclohexyl ester	Yes	PMN	ACTIVE
0002235- 00-9	2h-azepin-2-one, 1-ethenylhexahydro-	Yes		ACTIVE
0028961- 43-5	Ethoxylated trimethylolpropane triacrylate	Yes	xυ	ACTIVE
0084434- 11-7	Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate	Νο		
0051728- 26-8	Pentaerythritol, ethoxylated, esters with acrylic acid	Yes	PMN; XU	ACTIVE
0084170- 74-1	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.'-(2,2-dimethyl-1,3- propanediyl)bis[.omega[(1-oxo-2-propenyl)oxy] -	Yes	PMN; XU	ACTIVE

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:

This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Revision Date

11/12/2024

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made

with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Disclaimer: The information presented herein is supplied as a guide to those who handle or use this product. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

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