

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code(s) CM-557H
Product name Black Ink w/ Heads-up Technology
Substance or Preparation Preparation

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

Recommended Use ink
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer:

Collins Inkjet Corporation
1201 Edison Drive
Cincinnati, Ohio 45216
PH: 513-948-9000
Info@collinsinkjet.com
For further information, please contact

Emergency telephone number Chemtrec 1-800-424-9300

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Regulation (EC) No 1272/2008

Classification according to Directive 67/548/EEC or 1999/45/EC
Full text of R-phrases: see section 16

Symbol(s)

Not dangerous

Label elements

Product identifier

Hazard statements

H360D - May damage the unborn child

Other Hazards

Causes mild skin irritation.

General Hazards

May cause skin and eye irritation. May cause irreversible damage to eyes.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not Applicable

3.2 Mixtures

Chemical name	EC No	CAS-No	Weight %	Classification	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Reg. No
Triethanolamine	EEC No. Present	102-71-6	1 - 5	Xi;R36	Eye Irrit. 2 (H319)	No data available
Black Dye	Listed	-	1 - 5	-	No data available	No data available
Lactam	Listed	-	1 - 5	Xi; R36/37/38 Repr.Cat.2; R61	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Repr. 1B (H360D) STOT SE 3 (H335)	No data available
Ethyl alcohol	EEC No. Present	64-17-5	0.01 - <0.1	F; R11	Flam. Liq. 2 (H225)	No data available

Full text of R-phrases: see section 16

Full text of H- and EUH-phrases: see section 16

NOTE

Remaining components are either not hazardous or below threshold limits.

Section 4: FIRST AID MEASURES

Description of first aid measures

General advice

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation

Call a physician immediately. Move to fresh air in case of accidental inhalation of vapors. If breathing is irregular or stopped, administer artificial respiration. None under normal use conditions. Get medical attention immediately if symptoms occur.

IF ON SKIN

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Drink 1 or 2 glasses of water.

Most important symptoms and effects, both acute and delayed

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use. Carbon dioxide (CO₂). Dry chemical. Alcohol resistant foam.

Unsuitable extinguishing media

None

Special hazards arising from the substance or mixture

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes

Advice for fire-fighters

Wear self-contained breathing apparatus and protective suit.

Section 6: ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Use personal protection recommended in Section 8.

Advice for Emergency Responders

Use personal protection recommended in Section 8.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up**Methods for containment**

Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

After cleaning, flush away traces with water.

Reference to other sections

See section 7 for more information.

Section 7: HANDLING AND STORAGE**Precautions for safe handling****Handling**

Use personal protective equipment as required. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation.

Hygiene Measures

Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities**Storage**

Keep containers tightly closed in a dry, cool and well-ventilated place.

Specific end use(s)**Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Chemical name	Eu	United Kingdom	France	Spain	Germany
Glycol					TWA: 1000 mg/m ³ Ceiling / Peak: 2000 mg/m ³
Triethanolamine 102-71-6				VLA-ED: 5 mg/m ³ VLA-ED	TWA: 5 mg/m ³ Ceiling / Peak: 20 mg/m ³
Lactam		STEL: 309 mg/m ³ STEL: 75 ppm TWA: 103 mg/m ³ TWA: 25 ppm Skin	TWA: 40 mg/m ³ TWA: 10 ppm STEL: 80 mg/m ³ STEL: 20 ppm	S* VLA-EC: 75 ppm VLA-EC: 309 mg/m ³ VLA-EC VLA-ED: 25 ppm VLA-ED; 103 mg/m ³ VLA-ED	TWA: 20 ppm TWA: 82 mg/m ³ Ceiling / Peak: 40 ppm Ceiling / Peak: 164 mg/m ³
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Triethanolamine 102-71-6		TWA: 5 mg/m ³	MAC: 5 mg/m ³ MAC	TWA: 5 ppm	TWA: 0.5 ppm TWA: 3.1 mg/m ³
Lactam			MAC: 20 ppm MAC; 80 mg/m ³ MAC (fume)	TWA: 10 ppm TWA: 40 mg/m ³ STEL: 80 mg/m ³ STEL: 20 ppm Skin	TWA: 20 mg/m ³ TWA: 5 ppm
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Glycol		STEL: 2000 mg/m ³			
Triethanolamine 102-71-6	STEL 1.6 ppm STEL (inhalable fraction); 10 mg/m ³ STEL (inhalable fraction) MAK: 0.8 ppm MAK (inhalable fraction); 5 mg/m ³ MAK (inhalable fraction)	STEL: 20 mg/m ³		TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 5 mg/m ³
Lactam	Skin STEL 80 ppm STEL; 320 mg/m ³ STEL MAK: 20 ppm MAK; 80 mg/m ³ MAK (mists)	STEL: 40 ppm STEL: 160 mg/m ³	NDSch: 240 mg/m ³ NDS: 120 mg/m ³ Skin	TWA: 20 mg/m ³ TWA: 5 ppm Skin STEL: 10 ppm STEL: 30 mg/m ³	TWA: 101 mg/m ³ TWA: 25 ppm Skin

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available.

Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations.

Personal Protective Equipment

- Eye/Face Protection** Tight sealing safety goggles. Wear safety glasses with side shields (or goggles). If splashes are likely to occur:.
- Hand protection** For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.
- Skin and body protection** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
- Respiratory protection** None under normal use conditions.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

General information

Physical state	liquid	Appearance	black
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Odor slight amine

Important health, safety and environmental information

Flash Point	> 100 °C	Method	Seta closed cup.
Boiling point / boiling range	No information available	pH	
PH	9 - 11	Autoignition temperature	>200 °C
Vapor Pressure	No information available	VOC Content	No information available
Viscosity	< 15 cps	Solubility	Soluble in water
Specific gravity	0.9 - 1.1	Evaporation Rate	No information available
Vapor Density	Heavier than air		
		Flammability Limit in Air	No information available

OTHER INFORMATION

Melting point / melting range No information available

Section 10: STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Possibility of hazardous reactions

Hazardous polymerization

Hazardous polymerization does not occur.

Hazardous Reactions

None under normal processing.

Conditions to avoid

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides.

Section 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Product Information

The product has not been tested.

Inhalation

Inhalation of vapors in high concentration may cause irritation of respiratory system. May cause irritation of respiratory tract. Avoid breathing vapors or mists.

Eye contact

Contact with eyes may cause irritation. Avoid contact with eyes. May cause irreversible damage to eyes.

IF ON SKIN May cause irritation. May discolor the skin. Avoid contact with skin.

Ingestion May cause gastrointestinal discomfort if consumed in large amounts. MAY BE HARMFUL IF SWALLOWED. Do NOT taste or swallow.

Unknown acute toxicity 21.827584% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 41,006.00 mg/kg
ATEmix (dermal) 91,567.00 mg/kg
ATEmix (inhalation-dust/mist) 121.40 mg/l

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Triethanolamine	= 4190 mg/kg (Rat)	> 20 mL/kg (Rabbit) > 16 mL/kg (Rat)	
Lactam	= 3598 mg/kg (Rat)	= 8 g/kg (Rabbit)	= 3.1 mg/L (Rat) 4 h
Ethyl alcohol	= 7060 mg/kg (Rat)		= 124.7 mg/L (Rat) 4 h

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Sensitization No information available.

Mutagenic effects Contains: Black Dye. This material has tested positive in mutagenicity studies, however the relevance of these data to human health is uncertain.

Carcinogenic effects No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target organ effects Respiratory System, EYES, skin, Gastrointestinal tract (GI).

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Not Established.

22.78637% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Triethanolamine	216: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 169: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	10600 - 13000: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 450 - 1000: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 1000: 96 h <i>Pimephales promelas</i> mg/L LC50 static	1386: 24 h <i>Daphnia magna</i> mg/L EC50
Lactam	500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	832: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 4000: 96 h <i>Leuciscus idus</i> mg/L LC50 static 1072: 96 h <i>Pimephales promelas</i> mg/L LC50 static 1400: 96 h	4897: 48 h <i>Daphnia magna</i> mg/L EC50

Ethyl alcohol		Poecilia reticulata mg/L LC50 static 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static	9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static
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Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Chemical name	Log Pow
Triethanolamine	-2.53
Lactam	-0.46
Ethyl alcohol	-0.32

Mobility in soil

Mobility in soil

No information available.

Results of PBT and vPvB assessment

This substance is considered to be persistent, bioaccumulating and toxic (PBT).

Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

- 14.1 UN-No Not regulated
- 14.2 Proper shipping name Not regulated
- 14.3 Hazard Class Not regulated
- 14.4 Packing group Not regulated
- 14.5 Marine pollutant Not applicable
- 14.6 Special Provisions None
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

RID

- 14.1 UN-No Not Regulated

14.2 Proper shipping name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing group	Not Regulated
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None

ADR

14.1 UN-No	Not Regulated
14.2 Proper shipping name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing group	Not Regulated
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None

ICAO

14.1 UN-No	Not Regulated
14.2 Proper shipping name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing group	Not Regulated
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None

IATA

14.1 UN-No	Not Regulated
14.2 Proper shipping name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing group	Not Regulated
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None

Section 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

Chemical name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Triethanolamine 102-71-6	X	X	X	X	X	X	X	X
Black Dye	X	X	X	X	X	X	X	X
Lactam	X	X	X	X	X	X	X	X
Ethyl alcohol 64-17-5	X	X	X	X	X	X	X	X

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Chemical safety assessment

No information available

Section 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R36 - Irritating to eyes

R61 - May cause harm to the unborn child

R36/37/38 - Irritating to eyes, respiratory system and skin

Full text of H-Statements referred to under sections 2 and 3

H319 - Causes serious eye irritation

H315 - Causes skin irritation

H360D - May damage the unborn child

H335 - May cause respiratory irritation

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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Disclaimer

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End of Safety Data Sheet