

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

Product identifier

Product Code(s) TWK2103

Product name Black Ink

Substance or Preparation Preparation
Contains Benzisothiazolinone, 2-Pyrrolidinone, 1-ethyl-

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

Skin sensitization	Category 1 - (H317)
Reproductive Toxicity	Category 1B - (H360)

Classification according to Directive 67/548/EEC or 1999/45/EC

Full text of R-phrases: see section 16

Symbol(s)

Xn - Harmful

R-code(s)

Xn;R22 - Xi;R36 - R43

Label elements

Product identifier

Contains Benzisothiazolinone, 2-Pyrrolidinone, 1-ethyl-



Signal word
DANGER

Hazard statements

H317 - May cause an allergic skin reaction
H360 - May damage fertility or the unborn child
H360D - May damage the unborn child

Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear eye protection/ face protection
P321 - Specific treatment (see supplemental first aid instructions on this label)
P201 - Obtain special instructions before use
P281 - Use personal protective equipment as required
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P202 - Do not handle until all safety precautions have been read and understood

Other Hazards

May be harmful if swallowed.

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
Lactam	Listed	-	25 - 50	Xn;R22	Repr. 1B (H360D)	No data available
Lactam #2	Listed	-	1 - 15	Xi;R36/38	Eye Irrit. 2 (H319)	No data available
Modified Carbon Black	EEC No. 421-840-8	NOT ASSIGNED	1 - 5	-	No data available	No data available
Isothiazolin Derivative	Listed	-	0.01 - <0.1	Xn; R22 Xi; R38-41 R43 N; R50	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400)	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). If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
Inhalation	If breathing is irregular or stopped, administer artificial respiration. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Consult a physician. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.
IF ON SKIN	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary. Wash off immediately with soap and plenty of water. Immediate medical attention is not required. If skin irritation persists, call a physician.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingestion	Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician. Rinse mouth. Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed**Indication of any immediate medical attention and special treatment needed**

Notes to Physician May cause sensitization of susceptible persons. Use of epinephrine may be indicated. 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
Thermal decomposition can lead to release of irritating gases and vapors In the event of fire and/or explosion do not breathe fumes
May cause sensitization by inhalation and skin contact

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. Avoid contact with skin, eyes and clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

OTHER INFORMATION.

Advice for Emergency Responders

Use personal protection recommended in Section 8.

Environmental Precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. 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 Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up.

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. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation.

Hygiene Measures

Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Regular cleaning of equipment, work area and clothing is recommended.

Conditions for safe storage, including any incompatibilities

Storage

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

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
Lactam					TWA: 2 ppm TWA: 9.4 mg/m ³ Ceiling / Peak: 4 ppm Ceiling / Peak: 18.8 mg/m ³
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Lactam		STEL: 4 ppm STEL: 18.8 mg/m ³			

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. Face protection shield.
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. Lightweight protective clothing. Apron. For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn. Suitable protective clothing.
Respiratory protection None under normal use conditions.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

General information

Physical state	liquid	Appearance	black
Odor	Acrylic		

Important health, safety and environmental information

Flash Point	> 100 °C	Method	Seta closed cup.
Boiling point / boiling range	No information available	pH	
PH	8 - 10	Autoignition temperature	>200 °C
Vapor Pressure	No information available	VOC Content	No information available
Viscosity	< 15 cps	Solubility	miscible
Water 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 No information available.
 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	May cause irritation of respiratory tract. Avoid breathing vapors or mists.
Eye contact	Irritating to eyes. Avoid contact with eyes.
IF ON SKIN	May cause irritation. Avoid contact with skin.
Ingestion	May cause gastrointestinal discomfort if consumed in large amounts. Harmful if swallowed. Do NOT taste or swallow.

Unknown acute toxicity 4.8565% 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) 4,205.00 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Lactam	= 1350 mg/kg (Rat)		
Lactam #2	> 3200 mg/kg (Rat)		
Modified Carbon Black	greater than 2000 mg/kg	greater than 2000 mg/kg	
Isothiazolin Derivative	= 1020 mg/kg (Rat)		

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Sensitization	May cause an allergic skin reaction.
Mutagenic effects	No information available.
Carcinogenic effects	No information available.
Reproductive toxicity	May impair fertility. Possible risk of impaired fertility. May cause harm to the unborn child. Possible risk of harm to the unborn child.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target organ effects	Respiratory System.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Not Established.

35.0665% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Lactam #2	250: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 84: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	4600 - 10000: 96 h <i>Brachydanio rerio</i> mg/L LC50 static	3.4: 96 h <i>Daphnia magna</i> mg/L LC50

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Chemical name	Log Pow
Lactam #2	-0.71
Isothiazolin Derivative	1.3

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.

OTHER INFORMATION

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

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
Lactam	X	X	X	X	X	-	X	-
Lactam #2	X	X	X	X	X	X	X	X

Modified Carbon Black NOT ASSIGNED	-	X	X	X	X	X	X	X
Isothiazolin Derivative	X	X	X	X	X	X	X	X

Legend

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

DSL/NDL - 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

R22 - Harmful if swallowed

R50 - Very toxic to aquatic organisms

R43 - May cause sensitization by skin contact

R41 - Risk of serious damage to eyes

R38 - Irritating to skin

R36/38 - Irritating to eyes and skin

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

H302 - Harmful if swallowed

H315 - Causes skin irritation

H318 - Causes serious eye damage

H317 - May cause an allergic skin reaction

H400 - Very toxic to aquatic life

H360D - May damage the unborn child

H319 - Causes serious eye irritation

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Reason for revision

Not Applicable.

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

Disclaimer

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End of Safety Data Sheet