

Issuing Date 21-Nov-2014

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

Product identifier

Product Code(s) TWK1396
Product name MAX3 Black
Substance or Preparation Preparation
Contains 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

Reproductive Toxicity	Category 1B - (H360)
Chronic aquatic toxicity	Category 3 - (H412)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
For the full text of the R phrases mentioned in this Section, see Section 16

Symbol(s)
Xn - Harmful

R-code(s)
Xn;R22 - Xi;R36

Label elements
Product identifier



Contains 2-Pyrrolidinone, 1-ethyl-

Signal word
DANGER

Hazard statements

H360 - May damage fertility or the unborn child
H412 - Harmful to aquatic life with long lasting effects
H360D - May damage the unborn child

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

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. Harmful to aquatic life. combustible liquid.

General Hazards

May cause skin and eye irritation. MAY CAUSE RESPIRATORY TRACT IRRITATION.

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	-	15 - 45	Xn;R22	Repr. 1B (H360D)	
Modified Carbon Black	-	NOT AVAILABLE	1 - 10	-	no data available	
Ethyl alcohol	EEC No. Present	64-17-5	1 - 5	F; R11	Flam. Liq. 2 (H225)	

For the full text of the R phrases mentioned in this Section, 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

Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. If symptoms persist, call a physician. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation	If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Remove to fresh air. 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. 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. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. 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.
<u>Most important symptoms and effects, both acute and delayed</u>	
<u>Indication of any immediate medical attention and special treatment needed</u>	
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. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

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

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 breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. 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 out of the reach of children. Keep container tightly closed in a dry and well-ventilated place. 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 Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	Eu	The 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
Ethyl alcohol 64-17-5		TWA: 1000 ppm TWA: 1920 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 5000 ppm STEL: 9500 mg/m ³	VLA-ED: 1000 ppm VLA-ED; 1910 mg/m ³ VLA-ED	TWA: 500 ppm TWA: 960 mg/m ³ Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m ³
Chemical name	Italy	Portugal	The Netherlands	Finland	Denmark
Ethyl alcohol 64-17-5		TWA: 1000 ppm	MAC: 500 ppm MAC; 1000 mg/m ³ MAC	TWA: 1900 mg/m ³ TWA: 1000 ppm STEL: 2500 mg/m ³ STEL: 1300 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Lactam		STEL: 4 ppm STEL: 18.8 mg/m ³			
Ethyl alcohol 64-17-5	STEL 2000 ppm STEL; 3800 mg/m ³ STEL MAK: 1000 ppm MAK; 1900 mg/m ³ MAK	STEL: 1000 ppm STEL: 1920 mg/m ³	NDS: 1900 mg/m ³	TWA: 500 ppm TWA: 950 mg/m ³ STEL: 1187.5 mg/m ³ STEL: 625 ppm	TWA: 1000 ppm TWA: 1900 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. Suitable protective clothing. Apron. For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.
- Respiratory protection** Use only with adequate ventilation. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

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	slight amine		

Important health, safety and environmental information

Flash Point	> 89 °C	This temperature may be significantly lower under particular conditions (slow oxidation on finely divided materials)	Seta closed cup.
Boiling point / boiling range		pH	8 - 10
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 Limits in Air	No information available

OTHER INFORMATION

Melting Point/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	May cause irritation of respiratory tract. Avoid breathing vapors or mists.
Eye contact	Avoid contact with eyes. Expected to be an irritant based on components. May cause irreversible damage to eyes. Irritating to eyes.
IF ON SKIN	Avoid contact with skin. May cause irritation.
INGESTION	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. HARMFUL IF SWALLOWED. Do NOT taste or swallow.

Unknown acute toxicity 4.89462% 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)	4,419.00 mg/kg
ATEmix (inhalation-dust/mist)	4,361.70 mg/l

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Lactam	= 1350 mg/kg (Rat)		
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 No information available.

Carcinogenic effects This product contains Ethanol which is classified as a possible carcinogen when ingested in the form of an alcoholic beverage. This is irrelevant as this product is used for ink jet ink applications not an alcoholic beverage.

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target organ effects	blood, Central Nervous System (CNS), EYES, liver, Reproductive System, Respiratory System, skin.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

Toxicity

Harmful to aquatic life Harmful to aquatic life with long lasting effects

Ecotoxicity effects

Not Established.

34.895018% 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)
Ethyl alcohol		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 2: 48 h Daphnia magna mg/L EC50 Static 10800: 24 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Chemical name	Log Pow
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

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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	
14.2 Proper shipping name	No information available
14.3	
14.4	
14.5 Marine pollutant	Lead compounds
14.6	
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1	
14.2 Proper shipping name	No information available
14.3	
14.4	
14.5	
14.6 Special Provisions	274, 561

ADR

14.1	
14.2 Proper shipping name	No information available
14.3	
14.4	
14.5	
14.6 Special Provisions	[DOT]: 101

ICAO

14.1	
14.2 Proper shipping name	No information available
14.3	
14.4	
14.5	
14.6	

IATA

14.1	
14.2 Proper shipping name	No information available
14.3	
14.4	
14.5	
14.6 Special Provisions	A112

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	-
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

R22 - Harmful if swallowed

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

H360D - May damage the unborn child

Prepared by

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Reason for revision

Not Applicable.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

This product is intended to be used as a printing fluid. The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet