Material Safety Data Sheet

Prepared in accordance with ISO 11014-1/ANSI standard Z400.1-2004

Print Date Mar-17-2014 **Revision Date** Mar-17-2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product code **LWS155CY**
Product name **Cyan**
Product category 155 Series Inkjet Ink

Manufacturer or supplier's details

UNITED STATES
Nazdar Company
8501 Hedge Lane Terrace
Shawnee, KS 66227
Tel: 1-913-422-1888
Tel: 1-800-677-4657
Fax: 1-913-422-2294

UNITED KINGDOM
Nazdar Limited
Barton Road
Heaton Mersey
Stockport, England SK4 3EG
Tel: +44 161 442 2111

Emergency Telephone Number

USA: Chemtrec: 1-800-424-9300
Outside USA: Chemtrec: 1-703-527-3887

Website: www.nazdar.com
MSDS Information: 1-913-422-1888 ext 2305
MSDS Contact: Regulatory Compliance
email: regcomp@nazdar.com

2. HAZARDS IDENTIFICATION

This product is a preparation. Health hazard information is based on its components.

Appearance Colored liquid
Flammable Properties Combustible liquid and vapor.
Emergency Overview Irritant. May cause drowsiness and dizziness.

Eyes Moderately irritating to the eyes. Risk of serious damage to eyes. Avoid contact with eyes.
Skin Causes skin irritation. Prolonged skin contact may defat the skin and produce dermatitis. May be absorbed through the skin in harmful amounts. May be harmful if absorbed through skin.
Inhalation May cause irritation of respiratory tract. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Ethylene glycol monobutyl ether acetate	112-07-2	30 - 60
Gamma Butyrolactone	96-48-0	10 - 30
Cyclohexanone	108-94-1	10 - 30
Dimethyl Succinate	106-65-0	5 - 10
Copper Phthalocyanine Compound	Trade Secret	1 - 5

4. FIRST AID MEASURES

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately if irritation develops and persists.

Skin Contact Wash off immediately with soap and plenty of water. Use a mild soap if available. Rinse immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation develops, get medical attention.

Inhalation If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.

Ingestion If swallowed, DO NOT induce vomiting. Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

Flammable Properties Combustible liquid and vapor.

Suitable Extinguishing Media Foam. Carbon dioxide (CO2). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Keep away from fire, sparks and heated surfaces. Cool containers / tanks with water spray. Fire or intense heat may cause violent rupture of packages.

Specific Hazards Arising from the Chemical Thermal decomposition can lead to release of irritating gases and vapours. Burning produces obnoxious and toxic fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Remove all sources of ignition. Ventilate the area. Avoid breathing dust or vapor. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Methods for Cleaning Up Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Do not use sparking tools.

Environmental Precautions Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Remove and wash contaminated clothing before re-use. Discard contaminated shoes. When using do not smoke. Take notice of the directions of use on the label. Do not take internally. Harmful or fatal if swallowed.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep out of the reach of children. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Ontario TWAEV	Mexico OEL (TWA)
Ethylene glycol monobutyl ether acetate	TWA: 20 ppm			TWA: 20 ppm	
Cyclohexanone	TWA: 20 ppm STEL: 50 ppm Skin	TWA: 25 ppm TWA: 100 mg/m³ TWA: 50 ppm TWA: 200 mg/m³ Skin	700 ppm	TWA: 20 ppm STEL: 50 ppm Skin	TWA/LMPE-PPT: 50 ppm TWA/LMPE-PPT: 200 mg/m³ STEL/LMPE-CT: 100 ppm STEL/LMPE-CT: 400 mg/m³

Engineering Measures Use ventilation adequate to keep exposures below recommended exposure limits. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal Protective Equipment

Respiratory Protection Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Respirator with a vapour filter.

Eye Protection Ensure that eyewash stations and safety showers are close to the workstation location. Avoid contact with eyes. Safety glasses with side-shields. Goggles. Face-shield.

Skin Protection Wear protective gloves/clothing. Solvent-resistant apron and boots.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking, or smoking. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colored liquid	**Physical State**	Liquid
Odor	Characteristic	**Odor Threshold**	No information available
pH	No information available	**Autoignition Temperature**	No information available
Boiling point/Boiling Range	>149 °C / >300 °F	**Melting Point/Range**	No information available
Freezing Point/Range	No information available	**Solubility**	No information available
Evaporation Rate	No information available	**Partition Coefficient (n-octanol/water)**	No information available
Vapour Pressure	No information available	**Vapour Density**	Heavier than air
Flammability (solid, gas)	No information available		

Flammability Limits in Air

Upper No information available

Lower No information available

Flash Point	> 66 °C / > 151 °F	**Photochemically Reactive**	No
Method	(Minimum)		

Weight Per Gallon (lbs/gal)	8.32	**Specific Gravity**	1
VOC by weight % (less water)	94.48	**VOC by volume % (less water)**	No information available
VOC lbs/gal (less water)	7.86	**VOC grams/liter (less water)**	941.5

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.

Conditions to Avoid Heat, flames and sparks.

Incompatible Products Strong acids. Strong bases. Strong oxidizing agents. Reducing agents.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapours. Carbon dioxide (CO2). Carbon monoxide.

Possibility of Hazardous Reactions None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethylene glycol monobutyl ether acetate	1600 mg/kg (Rat)	1480 mg/kg (Rabbit)	
Gamma Butyrolactone	1540 mg/kg (Rat)		>2.68 mg/L (Rat) 4 h
Cyclohexanone	800 mg/kg (Rat)		8000 ppm (Rat) 4 h 10.7 mg/L (Rat) 4 h
Dimethyl Succinate	>5000 mg/kg (Rat)	>5000 mg/kg (Rabbit)	

Chronic Toxicity

Component	ACGIH	IARC	NTP	OSHA
Ethylene glycol monobutyl ether acetate	A3			
Cyclohexanone	A3			

ACGIH: (American Conference of Governmental Industrial Hygienists) *A3 - Animal Carcinogen*

Sensitisation No information available
Mutagenic Effects No information available
Reproductive Effects No information available
Developmental hazard No information available
Teratogenicity No information available
Chronic Effects Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effect, such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system.
Target Organ Effects Blood, Central nervous system, Eyes, Hematopoietic System, Kidney, Liver, Respiratory system, Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

We have no quantitative data concerning the ecological effects of this product. Should not be released into the environment.

Component	Algae	Fish	Water Flea
Ethylene glycol monobutyl ether acetate	72h EC50 Desmodesmus subspicatus: >500 mg/L		
Gamma Butyrolactone	72h EC50 Desmodesmus subspicatus: 360 mg/L 96h EC50 Desmodesmus subspicatus: 79 mg/L	96h LC50 Leuciscus idus: 220 - 460 mg/L [static]	48h EC50 Daphnia magna Straus: >500 mg/L
Cyclohexanone	96h EC50 Chlorella vulgaris: 20 mg/L	96h LC50 Pimephales promelas: 481 - 578 mg/L [flow-through]	24h EC50 Daphnia magna: 800 mg/L
Dimethyl Succinate		96h LC50 Brachydanio rerio: 50 - 100 mg/L [static]	
Copper Phthalocyanine Compound		48h LC50 Oryzias latipes: >100 mg/L [static]	

Persistence and Degradability No information available
Bioaccumulation No information available
Mobility in Environmental Media No information available

Component	log Pow
Ethylene glycol monobutyl ether acetate	1.51
Gamma Butyrolactone	-0.566
Cyclohexanone	0.86
Dimethyl Succinate	0.19
Copper Phthalocyanine Compound	6.6

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of contents/container in accordance with local regulation.

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

Printing Ink, Not Regulated

ICAO/IATA

Not classified as dangerous in the meaning of transport regulations

IMDG/IMO

Not classified as dangerous in the meaning of transport regulations

15. REGULATORY INFORMATION

International Inventories

Listed on TSCA. For further information, please contact: Manufacturer, importer, supplier

U.S. Federal Regulations

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Ethylene glycol monobutyl ether acetate	112-07-2	30 - 60	1.0

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

Component	CAS-No	Weight %
Ethylene glycol monobutyl ether acetate	112-07-2	30 - 60

U.S. State Regulations

Component	Massachusetts Right To Know	Minnesota Right To Know	New Jersey Right To Know	Pennsylvania Right To Know
Ethylene glycol monobutyl ether acetate	Not Listed	Not Listed	X	X
Cyclohexanone	X	X	X	X
Copper Phthalocyanine Compound	Not Listed	Not Listed	X	X

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

Component	WHMIS Classifications of Components
Ethylene glycol monobutyl ether acetate	B3
Cyclohexanone	B3,D1B,D2B
Copper Phthalocyanine Compound	Uncontrolled product according to WHMIS classification criteria

Component	NPRI - National Pollutant Release Inventory
Ethylene glycol monobutyl ether acetate	Part 4 Substance Part 5, Other Groups and Mixtures
Gamma Butyrolactone	Part 4 Substance
Cyclohexanone	Part 4 Substance
Dimethyl Succinate	Part 4 Substance
Copper Phthalocyanine Compound	Part 1, Group 1 Substance

Regulation (EC) No. 1907/2006 (REACH), Article 57

This product does not contain substances of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 57)

HMIS:	Health	Flammability	Reactivity	PPE
	3 *	2	0	X

16. OTHER INFORMATION

Revision Date Mar-17-2014

Revision Note New MSDS format

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

End of MSDS