



1. PRODUCT AND COMPANY IDENTIFICATION

Product code LWS910YE
Product name Yellow
Product category Lyson® 910 Series Digital 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.
Skin May cause skin irritation and/or dermatitis. 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	60 - 100
1-Methyl-2-pyrrolidone	872-50-4	1 - 5
Nickel Compounds	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. Do not take internally. Harmful or fatal if swallowed. Take notice of the directions of use on the label.
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 Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Ontario TWAEV	Mexico OEL (TWA)
Ethylene glycol monobutyl ether acetate	TWA: 20 ppm			TWA: 20 ppm	
1-Methyl-2-pyrrolidone				TWA: 400 mg/m ³	

Engineering Measures	Use ventilation adequate to keep exposures below recommended exposure limits. See MSDS. 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. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

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	78 °C / 172 °F	Photochemically Reactive	No
Method	Estimated		
Weight Per Gallon (lbs/gal)	8.19	Specific Gravity	0.98
VOC by weight % (less water)	87.54	VOC by volume % (less water)	No information available
VOC lbs/gal (less water)	7.17	VOC grams/liter (less water)	858.78

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 (CO ₂). 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)	
1-Methyl-2-pyrrolidone	3598 mg/kg (Rat)	>5000 mg/kg (Rabbit) 2500 mg/kg (Rat)	3.1 mg/L (Rat) 4 h

Chronic Toxicity

Component	ACGIH	IARC	NTP	OSHA
Ethylene glycol monobutyl ether acetate	A3			
Nickel Compounds		Group 1	Known	X

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)
 NTP: (National Toxicity Program)
 OSHA: (Occupational Safety & Health Administration)

Group 1 - Carcinogenic to Humans
 Known - Known Carcinogen
 X - Present

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, Lungs, Nasal Cavities, 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		
1-Methyl-2-pyrrolidone	72h EC50 Desmodesmus subspicatus: >500 mg/L	96h LC50 Pimephales promelas: 1072 mg/L [static] 96h LC50 Poecilia reticulata: 1400 mg/L [static] 96h LC50 Leuciscus idus: 4000 mg/L [static] 96h LC50 Lepomis macrochirus: 832 mg/L [static]	48h EC50 Daphnia magna: 4897 mg/L

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
1-Methyl-2-pyrrolidone	-0.46

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	60 - 100	1.0
Nickel Compounds	Trade Secret	1 - 5	0.1
1-Methyl-2-pyrrolidone	872-50-4	1 - 5	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	60 - 100
Nickel Compounds	Trade Secret	1 - 5

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
1-Methyl-2-pyrrolidone	X	Not Listed	X	X
Nickel Compounds	Not Listed	Not Listed	X	X

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer and / or WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm

Component	CAS-No	Weight %
Nickel Compounds	Trade Secret	1 - 5
1-Methyl-2-pyrrolidone	872-50-4	1 - 5

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
1-Methyl-2-pyrrolidone	B3,D2B

Component	NPRI - National Pollutant Release Inventory
Ethylene glycol monobutyl ether acetate	Part 4 Substance Part 5, Other Groups and Mixtures
1-Methyl-2-pyrrolidone	Part 4 Substance Part 1, Group 1 Substance
Nickel Compounds	Part 1, Group 1 Substance

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

This product contains substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57)

Component	CAS-No	Weight %
1-Methyl-2-pyrrolidone	872-50-4	1 - 5

HMIS:	Health 2 *	Flammability 2	Reactivity 0	PPE X
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16. OTHER INFORMATION

Revision Date Dec-12-2012

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