



Material Safety Data Sheet

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

Print Date Aug-03-2009

Revision Date Aug-03-2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product code LPAE7898NCIKX
Product name Clear Light Light Black
Product description Lyson® Color Separation 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
7 Barton Road
Heaton Mersey Industrial Estate
Stockport, Chesire 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
Emergency Overview Irritant.

Eyes May cause eye irritation.
Skin May cause skin irritation and/or dermatitis.
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 %
Glycerol	56-81-5	10 - 30
Isopropyl alcohol	67-63-0	1 - 5
Diethylene glycol monobutyl ether	112-34-5	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 Move to fresh air. 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 No information available

Suitable Extinguishing Media	Foam. Carbon dioxide (CO ₂). 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. Keep container tightly closed. 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. Heat, flames and sparks. 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 labels and material safety data sheets for the working chemicals. 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. Take notice of the directions of use on the label. Do not freeze.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Ontario TWAEV	Mexico OEL (TWA)
Glycerol	TWA: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³ TWA: 15 mg/m ³		TWA: 10 mg/m ³	TWA: 10 mg/m ³
Isopropyl alcohol	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 980 mg/m ³ STEL: 1225 mg/m ³ STEL: 500 ppm	2000 ppm 10% LEL	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 980 mg/m ³ STEL: 1225 mg/m ³ STEL: 500 ppm

Engineering Measures	Use only with adequate ventilation. 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. Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands before eating, drinking, or smoking. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colored	Physical State	Liquid
Odor	Characteristic	Odor Threshold	No information available
pH	7-9	Autoignition Temperature	No information available
Boiling point/Boiling Range	>100°C / >212°F	Melting Point/Range	No information available
Freezing Point/Range	0°C / 32°F	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	Flash Point	> 93°C / > 200°F
Flammability Limits in Air		Photochemically Reactive	No
Upper	No information available	Specific Gravity	1.039
Lower	No information available	VOC by volume	No information available
Weight Per Gallon (lbs/gal)	8.662	VOC grams/liter (less water)	265.453
VOC by weight	25.575	Water by weight	63.05
VOC lbs/gal (less water)	2.215		
Volatile by weight (including Water)	71.86		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Heat, flames and sparks. Do not freeze.
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
Glycerol	12600 mg/kg (Rat)	21900 mg/kg (Rat)	570 mg/m ³ (Rat) 1 h
Isopropyl alcohol	4396 mg/kg (Rat)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h
Diethylene glycol monobutyl ether	3384 mg/kg (Rat)	2700 mg/kg (Rabbit)	

Chronic Toxicity

No information available

Sensitisation

No information available

Mutagenic Effects

No information available

Reproductive Effects	No information available
Developmental Effects	No information available
Teratogenicity	No information available
Chronic Effects	No information available
Target Organ Effects	Eyes, Kidney, 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	Freshwater Algae	Freshwater Fish	Water Flea
Glycerol		96 Hr LC50 Oncorhynchus mykiss: 51000-57000 mg/L	24 Hr EC50 Daphnia magna: >500 mg/L
Isopropyl alcohol	96 Hr EC50 Scenedesmus subspicatus: >1000 mg/L; 72 Hr EC50 Scenedesmus subspicatus: >1000 mg/L	96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]	48 Hr EC50 Daphnia magna: 13299 mg/L
Diethylene glycol monobutyl ether	96 Hr EC50 Scenedesmus subspicatus: >100 mg/L	96 Hr LC50 Lepomis macrochirus: 1300 mg/L [static]	24 Hr EC50 water flea: 2850 mg/L; 48 Hr EC50 Daphnia magna: >100 mg/L

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

Component	log Pow
Glycerol	-1.76
Isopropyl alcohol	0.05

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

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Diethylene glycol monobutyl ether	112-34-5	1 - 5	1.0

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

This product contains the following HAPs:

Component	CAS-No	Weight %
Diethylene glycol monobutyl ether	112-34-5	1 - 5

U.S. State Regulations**State Right-to-Know**

Component	Minnesota	Florida	New Jersey	Pennsylvania	Massachusetts	Rhode Island
Glycerol	Not Listed	Not Listed	X	X	X	X
Isopropyl alcohol	Not Listed	Not Listed	X	X	X	X
Diethylene glycol monobutyl ether	Not Listed	Not Listed	X	X	Not Listed	Not Listed

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
Glycerol	Uncontrolled product according to WHMIS classification criteria
Isopropyl alcohol	B2, D2B (including 70%)
Diethylene glycol monobutyl ether	B3, D2B

Component	NPRI - National Pollutant Release Inventory
Glycerol	Part 4 Substance
Isopropyl alcohol	Part 1, Group 1 Substance; Part 5 Substance Part 4 Substance
Diethylene glycol monobutyl ether	Part 5 Substance Part 4 Substance

REACH: Substances of Very High Concern (SVHC): Article 57 of Regulation (EC) No 1907/2006

Does NOT contain a listed substance

HMIS:	Health	Flammability	Reactivity	PPE
	1	1	0	X

16. OTHER INFORMATION

Revision Date Aug-03-2009

Revision Summary 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