

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product code LWS133CY
Product name Cyan
Product description Lyson® 133 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
 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

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

Classification

Xi;R36 - R52/53
 Xi - Irritant



Most Important Hazards

Irritating to eyes
 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Appearance

Viscous liquid

Emergency Overview

Harmful to aquatic organisms. Irritant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No.	CAS-No	Weight %	Classification
Diethylene glycol diethyl ether	203-963-7	112-36-7	60 - 70	Xi;R36
Gamma Butyrolactone	202-509-5	96-48-0	10 - 20	Xn;R22 Xi;R36
Ethylene glycol monobutyl ether acetate	203-933-3	112-07-2	5 - 10	Xn;R20/21
Dibutyltin bis (2-ethylhexyl mercaptoacetate)	234-186-1	10584-98-2	< 0.1	Xn;R22 N;R50-53

For the full text of the R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes

Inhalation	Move to fresh air
Ingestion	Clean mouth with water and drink afterwards plenty of water

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	Keep product and empty container away from heat and sources of ignition

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation
Methods for Cleaning Up	Clean up under the supervision of an expert after material has solidified
Environmental Precautions	Prevent further leakage or spillage if safe to do so

7. HANDLING AND STORAGE

Handling	Ensure adequate ventilation
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

The product does not contain any hazardous materials with occupational exposure limits established

Component	European Union	The United Kingdom	France	Spain	Germany
Ethylene glycol monobutyl ether acetate		STEL: 50 ppm TWA: 20 ppm Skin	VME: 2 ppm VME: 13.3 mg/m ³ VLCT: 30 ppm VLCT: 199.8 mg/m ³ Skin	Skin VLA-EC: 333 mg/m ³ VLA-EC: 50 ppm VLA-ED: 133 mg/m ³ VLA-ED: 20 ppm	MAK: 10 ppm MAK: 66 mg/m ³ Skin Peak: 132 mg/m ³ Peak: 20 ppm
Dibutyltin bis (2-ethylhexyl mercaptoacetate)		STEL: 0.2 mg/m ³ TWA: 0.1 mg/m ³ Skin	VME: 0.1 mg/m ³ VLCT: 0.2 mg/m ³	Skin VLA-EC: 0.2 mg/m ³ VLA-ED: 0.1 mg/m ³	MAK: 0.1 mg/m ³ Skin Peak: 0.2 mg/m ³

Component	Italy	Portugal	The Netherlands	Finland	Austria
Ethylene glycol monobutyl ether acetate	TWA: 133 mg/m ³ TWA: 20 ppm STEL: 333 mg/m ³ STEL: 50 ppm Skin	TWA: 20 ppm Skin notation	Skin STEL: 333 mg/m ³ TWA: 135 mg/m ³	TWA: 20 ppm TWA: 130 mg/m ³ STEL: 50 ppm STEL: 330 mg/m ³ Skin	Skin STEL: 40 ppm STEL: 270 mg/m ³ MAK: 20 ppm MAK: 133 mg/m ³
Dibutyltin bis (2-ethylhexyl mercaptoacetate)		STEL: 0.2 mg/m ³ TWA: 0.1 mg/m ³ Skin			Skin STEL: 0.2 mg/m ³ MAK: 0.1 mg/m ³

Component	Switzerland	Poland	Norway	Ireland	Denmark
Ethylene glycol monobutyl ether acetate	Skin STEL: 80 ppm STEL: 540 mg/m ³ MAK: 20 ppm MAK: 135 mg/m ³	NDSCh: 300 mg/m ³ NDS: 100 mg/m ³	TWA: 65 mg/m ³ TWA: 10 ppm Skin	TWA: 20 ppm TWA: 133 mg/m ³ STEL: 50 ppm STEL: 333 mg/m ³ Skin	TWA: 130 mg/m ³ TWA: 20 ppm Skin

Component	Switzerland	Poland	Norway	Ireland	Denmark
Dibutyltin bis (2-ethylhexyl mercaptoacetate)	Skin STEL: 0.2 mg/m ³ MAK: 0.1 mg/m ³		TWA: 0.1 mg/m ³ Skin	Skin	

Occupational exposure controls

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.

Hand Protection

Nitrile rubber. Neoprene gloves.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Viscous 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	Flash Point	71°C / 160°F
Flammability Limits in Air		Method	Tag closed cup
Upper	No information available	Photochemically Reactive	No
Lower	No information available	Specific Gravity	0.96
Weight Per Gallon (lbs/gal)	8.003		

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

No information available

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diethylene glycol diethyl ether	4970 mg/kg (Rat)	6700 µL/kg (Rabbit)	
Gamma Butyrolactone	1540 mg/kg (Rat)		2.68 mg/L (Rat) 4 h
Ethylene glycol monobutyl ether acetate	1600 mg/kg (Rat)	1480 mg/kg (Rabbit)	
Dibutyltin bis (2-ethylhexyl mercaptoacetate)	510 mg/kg (Rat)		

Chronic Toxicity

No information available

Sensitisation	No information available
Neurological Effects	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	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. We have no quantitative data concerning the ecological effects of this product. Environmental fate information is derived from consideration of the properties of the ingredients. Should not be released into the environment.

Component	Freshwater Algae	Freshwater Fish	Water Flea
Gamma Butyrolactone	72 Hr EC50 Scenedesmus subspicatus: 360 mg/L; 96 Hr EC50 Scenedesmus subspicatus: 79 mg/L	96 Hr LC50 Leuciscus idus: 220-460 mg/L [static]	48 Hr EC50 Daphnia magna Straus: >500 mg/L
Ethylene glycol monobutyl ether acetate	72 Hr EC50 Scenedesmus subspicatus: >500 mg/L		48 Hr EC50 water flea: 37 mg/L
Dibutyltin bis (2-ethylhexyl mercaptoacetate)	72 Hr EC50 Scenedesmus subspicatus: 0.56 mg/L	96 Hr LC50 Brachydanio rerio: 11.7 mg/L [static]	48 Hr EC50 Daphnia magna Straus: 0.035 mg/L

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

Component	log Pow
Gamma Butyrolactone	-0.566
Ethylene glycol monobutyl ether acetate	1.51
Dibutyltin bis (2-ethylhexyl mercaptoacetate)	1.49

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

RID

Not classified as dangerous in the meaning of transport regulations

ADR

Not classified as dangerous in the meaning of transport regulations

IMDG/IMO

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations

ICAO/IATA

Not classified as dangerous in the meaning of transport regulations

15. REGULATORY INFORMATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC

Labelling

Symbol(s)

Xi - Irritant



R -phrase(s)

R36 - Irritating to eyes

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S -phrase(s)

S 2 - Keep out of the reach of children

S25 - Avoid contact with eyes

S46 - If swallowed, seek medical advice immediately and show this container or label

International Inventories

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

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

Does NOT contain a listed substance

16. OTHER INFORMATION

Text of R phrases mentioned in Section 3

R36 - Irritating to eyes

R22 - Harmful if swallowed

R20/21 - Harmful by inhalation and in contact with skin

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Revision Date

Mar-04-2010

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 Safety Data Sheet