

SAFETY DATA SHEET

Print DateRevision DateRevision NumberMay-31-2015May-30-20151

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

Product identifier

Product code 88369
Product name Green

Product category 8800 Series Color-Vue Membrane Screen Ink

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use Recommended use Printing operations

Details of the supplier of the safety data sheet

UNITED STATES
UNITED KINGDOM
Nazdar Company
Nazdar Limited
8501 Hedge Lane Terrace
Shawnee, KS 66227
Burton Road
Heaton Mersey

Tel: 1-913-422-1888 Stockport, England SK4 3EG
Tel: 1-800-677-4657 Tel: +44 161 442 2111

Fax: 1-913-422-2294 www.nazdar.com

Emergency telephone number

USA: Chemtrec: 1-800-424-9300

Outside USA: Chemtrec: 1-703-527-3887 24 Hour Emergency Phone Number

2. HAZARDS IDENTIFICATION

Classification

Skin Corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Aspiration toxicity	Category 1 - (H304)
Chronic aquatic toxicity	Category 3 - (H412)
Flammable liquids	Category 3 - (H226)

Label elements



Signal Word Danger

Hazard Statements

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation H319 - Causes serious eye irritation

H412 - Harmful to aquatic life with long lasting effects

H226 - Flammable liquid and vapor

Precautionary Statements

P331 - Do NOT induce vomiting

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P273 - Avoid release to the environment

Hazards not otherwise classified (HNOC)

May be harmful if swallowed. May be harmful in contact with skin. Harmful to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Component	CAS-No	Weight %	Trade Secret	Note
Naphtha (petroleum), heavy aromatic	64742-94-5	30 - 60	*	
Gamma Butyrolactone	96-48-0	10 - 30	*	
2-Butoxyethanol	111-76-2	5 - 10	*	
Copper Phthalocyanine Compound	Trade Secret	5 - 10	*	
Naphthalene (constituent)	91-20-3	1 - 5	*	1
Ethylene glycol monopropyl ether	2807-30-9	1 - 5	*	
1,2,4-Trimethylbenzene (constituent)	95-63-6	< 1	*	1

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

Note 1. Type of chemical: Constituent

4. FIRST AID MEASURES

Description of first aid measures

General Advice Show this safety data sheet to the doctor in attendance.

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 if irritation develops and

persists.

Skin Contact Wash off immediately with soap and plenty of water for at least 15 minutes. Remove

contaminated clothing. If irritation (redness, rash, blistering) develops, get medical attention.

Inhalation Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or

stopped, administer artificial respiration. Get medical attention immediately.

Ingestion DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a

physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed

None under normal use conditions.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. May emit toxic fumes under fire conditions.

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. Cool containers / tanks with water spray. Sealed containers may rupture when heated.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Remove all sources of ignition. Ventilate the area. Avoid contact with eyes, skin and

clothing. Avoid breathing dust or vapor. Evacuate personnel to safe areas. Keep people

away from and upwind of spill/leak.

Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use clean non-sparking tools to collect absorbed material.

7. HANDLING AND STORAGE

Precautions for safe handling

HandlingUse personal protective equipment as required. Do not eat, drink or smoke when using this

product. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from

open flames, hot surfaces and sources of ignition. Keep container closed when not in use.

Keep out of the reach of children.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Component	ACGIH TLV
2-Butoxyethanol	TWA: 20 ppm
111-76-2	
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	STEL: 15 ppm
	Skin

Component	OSHA PEL
2-Butoxyethanol	TWA: 25 ppm
111-76-2	TWA: 120 mg/m ³
	TWA: 50 ppm
	TWA: 240 mg/m ³
	Skin
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	TWA: 50 mg/m ³
	STEL: 15 ppm
	STEL: 75 mg/m ³

Component	Ontario TWAEV
2-Butoxyethanol	TWA: 20 ppm
111-76-2	
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	STEL: 15 ppm
	Skin
Ethylene glycol monopropyl ether	TWA: 25 ppm
2807-30-9	TWA: 110 mg/m ³
	Skin

Component	Mexico OEL (TWA)
2-Butoxyethanol	TWA/LMPE-PPT: 26 ppm
111-76-2	TWA/LMPE-PPT: 120 mg/m ³
	STEL/LMPE-CT: 75 ppm
	STEL/LMPE-CT: 360 mg/m ³
Naphthalene (constituent)	TWA/LMPE-PPT: 10 ppm
91-20-3	TWA/LMPE-PPT: 50 mg/m ³
	STEL/LMPE-CT: 15 ppm
	STEL/LMPE-CT: 75 mg/m³

Appropriate engineering controls

Engineering Measures Provide a good standard of general ventilation. Natural ventilation is from doors, windows

etc. Controlled ventilation means air is supplied or removed by a powered fan. Users are advised to consider national Occupational Exposure Limits or other equivalent values. In

case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face Protection Wear safety glasses with side shields (or goggles). If splashes are likely to occur:. Wear

suitable face shield. Ensure that eyewash stations and safety showers are close to the

workstation location.

Skin Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls,

as appropriate, to prevent skin contact.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Respiratory protection must be provided in

accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before

eating, drinking or smoking. Wash contaminated clothing before reuse. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of

No data available

equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Liquid Appearance Colored Liquid

Odor Characteristic Odor Threshold No information available

PropertyValuesRemarks • MethodpHNo data available

Melting point/freezing point

Boiling point/Boiling Range > 149 °C / 300 °F

Flash Point 49 °C / 120 °F Pensky Martens Closed Cup (PMCC)

Evaporation rateNo data available

Flammability Limit in Air

Upper flammability limit

Lower flammability limit

No data available

Vanor Pressure

No data available

Vapor Pressure
No data available
Vapor Density
No data available
Specific Gravity
1.06

Water Solubility

No data available

Solubility in other solventsNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition TemperatureNo data availableDecomposition temperatureNo data availableKinematic viscosityNo data availableDynamic viscosityNo data available

Explosive Properties No data available Oxidizing Properties No data available

Other Information

Photochemically Reactive Yes Weight Per Gallon (lbs/gal) 8.81

VOC by weight %	VOC by volume %	VOC lbs/gal	VOC grams/liter
(less water)	(less water)	(less water)	(less water)
67.07	69.41	5.92	

10. STABILITY AND REACTIVITY

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO2). Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

InhalationThere is no data for this product.Eye ContactThere is no data for this product.Skin ContactThere is no data for this product.IngestionThere is no data for this product.

Component	Oral LD50
Naphtha (petroleum), heavy aromatic 64742-94-5	>5000 mg/kg(Rat)
Gamma Butyrolactone 96-48-0	1540 mg/kg(Rat)
2-Butoxyethanol 111-76-2	470 mg/kg(Rat)
Copper Phthalocyanine Compound	3000 mg/kg (Rat)
Naphthalene (constituent) 91-20-3	490 mg/kg (Rat)
Ethylene glycol monopropyl ether 2807-30-9	3089 mg/kg (Rat)
1,2,4-Trimethylbenzene (constituent) 95-63-6	3400 mg/kg (Rat)

Component	LD50 Dermal
Naphtha (petroleum), heavy aromatic 64742-94-5	>2000 mg/kg(Rabbit)
2-Butoxyethanol 111-76-2	2270 mg/kg(Rat) 220 mg/kg(Rabbit)
Naphthalene (constituent) 91-20-3	>2500 mg/kg(Rat) >20 g/kg (Rabbit)
Ethylene glycol monopropyl ether 2807-30-9	960 μL/kg (Rabbit)
1,2,4-Trimethylbenzene (constituent) 95-63-6	>3160 mg/kg(Rabbit)

Component	Inhalation LC50
Naphtha (petroleum), heavy aromatic 64742-94-5	>590 mg/m³(Rat)4 h
Gamma Butyrolactone 96-48-0	>2.68 mg/L (Rat)4 h
2-Butoxyethanol 111-76-2	2.21 mg/L (Rat)4 h 450 ppm (Rat)4 h
Naphthalene (constituent) 91-20-3	>340 mg/m³(Rat)1 h
1,2,4-Trimethylbenzene (constituent) 95-63-6	18 g/m³(Rat) 4 h

Information on toxicological effects

Symptoms There is no data for this product.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	There is no data for this product.
Eye damage/irritation	There is no data for this product.
Irritation	There is no data for this product.
Corrosivity	There is no data for this product.
Sensitisation	There is no data for this product.
Mutagenic Effects	There is no data for this product.
Reproductive Effects	There is no data for this product.
STOT - single exposure	There is no data for this product.
STOT - repeated exposure	There is no data for this product.
Chronic Toxicity	There is no data for this product
Aspiration hazard	There is no data for this product.

<u>Carcinogenicity</u> The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH
2-Butoxyethanol	A3
111-76-2	

Component	IARC
Naphthalene (constituent)	Group 2B
91-20-3	

Component	NTP
Naphthalene (constituent)	Reasonably Anticipated
91-20-3	

Component	OSHA
Naphthalene (constituent)	X
91-20-3	

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

 ATEmix (oral)
 2,648.00 mg/kg

 ATEmix (dermal)
 3,463.00 mg/kg mg/l

ATEmix (inhalation-dust/mist) 28.77 mg/l ATEmix (inhalation-vapor) 143.00 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

None known

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Component	Algae/aquatic plants
Gamma Butyrolactone 96-48-0	72h EC50 Desmodesmus subspicatus: 360 mg/L 96h EC50 Desmodesmus subspicatus: 79 mg/L
Naphthalene (constituent) 91-20-3	72h EC50 Skeletonema costatum: 0.4 mg/L

Component	Fish
Gamma Butyrolactone 96-48-0	96h LC50 Leuciscus idus: 220 - 460 mg/L [static]
2-Butoxyethanol 111-76-2	96h LC50 Lepomis macrochirus: 1490 mg/L [static] 96h LC50 Lepomis macrochirus: 2950 mg/L
Copper Phthalocyanine Compound	96h LC50 Lepomis macrochirus: 752.4 mg/L [static]
Naphthalene (constituent) 91-20-3	96h LC50 Oncorhynchus mykiss: 0.91 - 2.82 mg/L [static] 96h LC50 Pimephales promelas: 5.74 - 6.44 mg/L [flow-through] 96h LC50 Oncorhynchus mykiss: 1.6 mg/L [flow-through] 96h LC50 Pimephales promelas: 1.99 mg/L [static] 96h LC50 Lepomis macrochirus: 31.0265 mg/L [static]
1,2,4-Trimethylbenzene (constituent) 95-63-6	96h LC50 Pimephales promelas: 7.19 - 8.28 mg/L [flow-through]

Component	Crustacea
Gamma Butyrolactone 96-48-0	48h EC50 Daphnia magna Straus: >500 mg/L
2-Butoxyethanol 111-76-2	24h EC50 Daphnia magna: 1698 - 1940 mg/L 48h EC50 Daphnia magna: >1000 mg/L
Copper Phthalocyanine Compound	24h EC50 Daphnia magna Straus: >500 mg/L
Naphthalene (constituent) 91-20-3	48h EC50 Daphnia magna: 1.09 - 3.4 mg/L [static] 48h EC50 Daphnia magna: 1.96 mg/L [Flow through] 48h LC50 Daphnia magna: 2.16 mg/L
1,2,4-Trimethylbenzene (constituent) 95-63-6	48h EC50 Daphnia magna: 6.14 mg/L

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Component	Partition coefficient
Naphtha (petroleum), heavy aromatic 64742-94-5	4.5
Gamma Butyrolactone 96-48-0	-0.566
2-Butoxyethanol 111-76-2	0.81
Naphthalene (constituent) 91-20-3	3.3
1,2,4-Trimethylbenzene (constituent) 95-63-6	3.63

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Methods Contain and dispose of waste according to local regulations.

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

disposal.

14. TRANSPORT INFORMATION

DOT In the U.S. and Canada, this material may be reclassified as a combustible liquid and is not

regulated, via surface transportation, in containers less than 119 gallons or 450 liters [per 49 CFR 173.150 (f)] [per Transportation of Dangerous Goods Regulations/Clear Language

Part 1.33].

Ш

UN/ID no. UN1210

Proper Shipping Name Printing Ink Hazard Class 3

Packing Group

ICAO / IATA / IMDG / IMO

UN/ID no. UN1210
Proper Shipping Name Printing Ink

Hazard Class 3
Packing Group III

15. REGULATORY INFORMATION

International Inventories

All components are listed on the TSCA Inventory. For further information, please contact:. Supplier (manufacturer/importer/downstream user/distributor).

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
2-Butoxyethanol	111-76-2	5 - 10	1.0
Naphthalene (constituent)	91-20-3	1 - 5	0.1
Ethylene glycol monopropyl ether	2807-30-9	1 - 5	1.0

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

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:.

Component	CAS-No	Weight %
Naphthalene (constituent)	91-20-3	1 - 5
Ethylene glycol monopropyl ether	2807-30-9	1 - 5

U.S. State Regulations

Component	Massachusetts Right To Know
2-Butoxyethanol	X
111-76-2	
Naphthalene (constituent)	X
91-20-3	
1,2,4-Trimethylbenzene (constituent)	X
95-63-6	

Component	Minnesota

	Right To Know
2-Butoxyethanol	X
111-76-2	
Naphthalene (constituent)	X
91-20-3	
1,2,4-Trimethylbenzene (constituent)	X
95-63-6	

Component	New Jersey Right To Know
2-Butoxyethanol 111-76-2	X
Copper Phthalocyanine Compound	X
Naphthalene (constituent) 91-20-3	X
Ethylene glycol monopropyl ether 2807-30-9	X
1,2,4-Trimethylbenzene (constituent) 95-63-6	X

Component	Pennsylvania Right To Know
2-Butoxyethanol 111-76-2	X
Copper Phthalocyanine Compound	X
Naphthalene (constituent) 91-20-3	x
Ethylene glycol monopropyl ether 2807-30-9	X
1,2,4-Trimethylbenzene (constituent) 95-63-6	X

<u>California Prop. 65</u>
This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm

Component	California Prop. 65
Naphthalene (constituent)	Carcinogen

Canada

Component	NPRI - National Pollutant Release Inventory
Naphtha (petroleum), heavy aromatic 64742-94-5	Part 5, Other Groups and Mixtures Part 4 Substance as set out in Section 65 of the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act, 1999
Gamma Butyrolactone 96-48-0	Part 4 Substance as set out in Section 65 of the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act, 1999
2-Butoxyethanol 111-76-2	Part 1, Group A Substance Part 5, Individual Substances Part 4 Substance as set out in Section 65 of the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act, 1999
Copper Phthalocyanine Compound	Part 1, Group A Substance total of the pure element and the equivalent weight of the element contained in any compound, alloy or mixture
Naphthalene (constituent) 91-20-3	Part 1, Group A Substance Part 4 Substance as set out in Section 65 of the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act, 1999
Ethylene glycol monopropyl ether 2807-30-9	Part 4 Substance as set out in Section 65 of the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act, 1999
1,2,4-Trimethylbenzene (constituent) 95-63-6	Part 1, Group A Substance Part 5, Individual Substances Part 4 Substance as set out in Section 65 of the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act, 1999

16. OTHER INFORMATION

HMIS: Health Flammability Reactivity Personal Protection X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average)
STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)
Known - Known Carcinogen

Reasonably Anticipated to be a Human Carcinogen
OSHA: (Occupational Safety & Health Administration)

X - Present

Revision Date May-30-2015

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