Material Safety Data Sheet

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

Print Date May-07-2012 **Revision Date** May-07-2012

1. PRODUCT AND COMPANY IDENTIFICATION

Product code **59158**
Product name **Dark Blue**
Product category 59000 Series Enamel Plus Gloss Screen 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, Cheshire 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 Aspiration hazard. Harmful: may cause lung damage if swallowed. Irritant. May cause drowsiness and dizziness.

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 Harmful if swallowed. Potential for aspiration if swallowed. Risk of serious damage to the lungs (by aspiration).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Stoddard solvent	8052-41-3	10 - 30
Solvent naphtha (petroleum), medium aliphatic	64742-88-7	1 - 5
Barium sulfate	7727-43-7	1 - 5
Titanium dioxide	13463-67-7	1 - 5
Xylenes (o-, m-, p- isomers)	1330-20-7	1 - 5
Ethyl benzene (contaminant)	100-41-4	< 0.5

• Component names which have the word (contaminant) are constituents contained in Aromatic Hydrocarbon ingredients and are an integral part of the ingredient and cannot be separated. The percentage listed for the contaminant is as contained in the Hydrocarbon ingredient. (Example: 100% Hydrocarbon, 10% Contaminant A, 3% Contaminant B)

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.

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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)
Stoddard solvent	TWA: 100 ppm	TWA: 100 ppm TWA: 525 mg/m³ TWA: 500 ppm TWA: 2900 mg/m³	20000 mg/m³	TWA: 525 mg/m³	TWA/LMPE-PPT: 100 ppm TWA/LMPE-PPT: 523 mg/m³ STEL/LMPE-CT: 200 ppm STEL/LMPE-CT: 1050 mg/m³
Solvent naphtha (petroleum), medium aliphatic				TWA: 525 mg/m³	

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Barium sulfate	TWA: 10 mg/m³	TWA: 10 mg/m³ (total dust) TWA: 5 mg/m³ (respirable fraction) TWA: 15 mg/m³ (total dust)		TWA: 10 mg/m³ (total dust)	
Titanium dioxide	TWA: 10 mg/m³	TWA: 10 mg/m³ (total dust) TWA: 15 mg/m³ (total dust)	5000 mg/m³	TWA: 10 mg/m³ (total dust)	TWA/LMPE-PPT: 10 mg/m³ (as Ti) STEL/LMPE-CT: 20 mg/m³ (as Ti)
Xylenes (o-, m-, p- isomers)	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 435 mg/m³ STEL: 150 ppm STEL: 655 mg/m³		TWA: 100 ppm STEL: 150 ppm	TWA/LMPE-PPT: 100 ppm TWA/LMPE-PPT: 435 mg/m³ STEL/LMPE-CT: 150 ppm STEL/LMPE-CT: 655 mg/m³
Ethyl benzene (contaminant)	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³ STEL: 125 ppm STEL: 545 mg/m³	800 ppm (10% LEL)	TWA: 100 ppm STEL: 125 ppm	TWA/LMPE-PPT: 100 ppm TWA/LMPE-PPT: 435 mg/m³ STEL/LMPE-CT: 125 ppm STEL/LMPE-CT: 545 mg/m³

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
Odor Characteristic
pH No information available
Boiling point/Boiling Range >149 °C / >300 °F
Freezing Point/Range No information available
Evaporation Rate No information available

Vapour Pressure No information available
Flammability (solid, gas) No information available

Flash Point 46 °C / 115 °F
Method Setaflash closed cup

Weight Per Gallon (lbs/gal) 8.92
VOC by weight % 33.87
VOC lbs/gal (less water) 3.02

Physical State Liquid
Odor Threshold No information available
Autoignition Temperature No information available
Melting Point/Range No information available
Solubility No information available
Partition Coefficient (n-octanol/water) No information available
Vapour Density Heavier than air

Flammability Limits in Air
Upper No information available
Lower No information available

Photochemically Reactive No

Specific Gravity 1.07
VOC by volume % No information available
VOC grams/liter (less water) 361.89

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
Solvent naphtha (petroleum), medium aliphatic	>5000 mg/kg (Rat)	3000 mg/kg (Rabbit)	>5.28 mg/L (Rat) 4 h
Titanium dioxide	>10000 mg/kg (Rat)		
Xylenes (o-, m-, p- isomers)	4300 mg/kg (Rat)	>1700 mg/kg (Rabbit)	5000 ppm (Rat) 4 h 47635 mg/L (Rat) 4 h
Ethyl benzene (contaminant)	3500 mg/kg (Rat)	15354 mg/kg (Rabbit)	17.2 mg/L (Rat) 4 h

Chronic Toxicity

Component	ACGIH	IARC	NTP	OSHA
Titanium dioxide		Group 2B		X
Ethyl benzene (contaminant)	A3	Group 2B		X

ACGIH: (American Conference of Governmental Industrial Hygienists) — *A3 - Animal Carcinogen*
IARC: (International Agency for Research on Cancer) — *Group 2B - Possibly Carcinogenic to Humans*
OSHA: (Occupational Safety & Health Administration) — *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 Central nervous system, 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	Algae	Fish	Water Flea
Solvent naphtha (petroleum), medium aliphatic	96h EC50 Pseudokirchneriella subcapitata: 450 mg/L	96h LC50 Pimephales promelas: 800 mg/L [static]	48h EC50 Daphnia magna: >100 mg/L

Xylenes (o-, m-, p- isomers)		96h LC50 Lepomis macrochirus: 13.1 - 16.5 mg/L [flow-through] 96h LC50 Oncorhynchus mykiss: 13.5 - 17.3 mg/L 96h LC50 Oncorhynchus mykiss: 2.661 - 4.093 mg/L [static] 96h LC50 Pimephales promelas: 23.53 - 29.97 mg/L [static] 96h LC50 Poecilia reticulata: 30.26 - 40.75 mg/L [static] 96h LC50 Lepomis macrochirus: 7.711 - 9.591 mg/L [static] 96h LC50 Pimephales promelas: 13.4 mg/L [flow-through] 96h LC50 Lepomis macrochirus: 19 mg/L 96h LC50 Cyprinus carpio: 780 mg/L [semi-static] 96h LC50 Cyprinus carpio: >780 mg/L	48h LC50 Gammarus lacustris: 0.6 mg/L 48h EC50 water flea: 3.82 mg/L
Ethyl benzene (contaminant)	96h EC50 Pseudokirchneriella subcapitata: 1.7 - 7.6 mg/L [static] 72h EC50 Pseudokirchneriella subcapitata: 2.6 - 11.3 mg/L [static] 72h EC50 Pseudokirchneriella subcapitata: 4.6 mg/L 96h EC50 Pseudokirchneriella subcapitata: >438 mg/L	96h LC50 Oncorhynchus mykiss: 11.0 - 18.0 mg/L [static] 96h LC50 Pimephales promelas: 7.55 - 11 mg/L [flow-through] 96h LC50 Pimephales promelas: 9.1 - 15.6 mg/L [static] 96h LC50 Lepomis macrochirus: 32 mg/L [static] 96h LC50 Oncorhynchus mykiss: 4.2 mg/L [semi-static] 96h LC50 Poecilia reticulata: 9.6 mg/L [static]	48h EC50 Daphnia magna: 1.8 - 2.4 mg/L

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

Component	log Pow
Xylenes (o-, m-, p- isomers)	2.96
Ethyl benzene (contaminant)	3.118

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

UN1210, Printing Ink, 3, III
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].

ICAO/IATA

UN1210, Printing Ink, 3, III

IMDG/IMO

UN1210, Printing Ink, 3, III

15. REGULATORY INFORMATION

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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
Ethyl benzene (contaminant)	100-41-4	< 0.5	0.1
Xylenes (o-, m-, p- isomers)	1330-20-7	1 - 5	1.0

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

Component	CAS-No	Weight %
Xylenes (o-, m-, p- isomers)	1330-20-7	1 - 5

U.S. State Regulations

Component	Massachusetts Right To Know	Minnesota Right To Know	New Jersey Right To Know	Pennsylvania Right To Know
Stoddard solvent	X	X	X	X
Solvent naphtha (petroleum), medium aliphatic	Not Listed	Not Listed	X	Not Listed
Barium sulfate	X	X	X	X
Titanium dioxide	X	X	X	X
Xylenes (o-, m-, p- isomers)	X	X	X	X
Ethyl benzene (contaminant)	X	X	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 %
Ethyl benzene (contaminant)	100-41-4	< 0.5
Titanium dioxide	13463-67-7	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
Stoddard solvent	B3,D2B
Solvent naphtha (petroleum), medium aliphatic	B3
Barium sulfate	Uncontrolled product according to WHMIS classification criteria
Titanium dioxide	D2A
Xylenes (o-, m-, p- isomers)	B2,D2A,D2B
Ethyl benzene (contaminant)	B2,D2A,D2B

Component	NPRI - National Pollutant Release Inventory
Stoddard solvent	Part 5 Substance Part 5, Other Groups and Mixtures
Solvent naphtha (petroleum), medium aliphatic	Part 5 Substance Part 5, Other Groups and Mixtures
Xylenes (o-, m-, p- isomers)	Part 1, Group 1 Substance Part 5 Substance Part 5, Isomer Groups
Ethyl benzene (contaminant)	Part 4 Substance Part 1, Group 1 Substance

Regulation (EC) No. 1907/2006 (REACH), Article 57
None known

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HMIS:	Health	Flammability	Reactivity	PPE
	1 *	2	0	X

16. OTHER INFORMATION

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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