Material Safety Data Sheet



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

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1. PRODUCT AND COMPANY IDENTIFICATION

Product code 59111 Product name Black

Product category 59000 Series Enamel Plus Gloss Screen Ink

Manufacturer or supplier's details

UNITED STATES UNITED KINGDOM Nazdar Company Nazdar Limited 7 Barton Road

Shawnee, KS 66227 Heaton Mersey Industrial Estate
Tel: 1-913-422-1888 Stockport, Cheshire SK4 3EG
Tel: 1-800-677-4657 Tel: +44 161 442 2111

Fax: 1-913-422-2294

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
Barium sulfate	7727-43-7	10 - 30
Carbon black	1333-86-4	1 - 5
Solvent naphtha (petroleum), medium aliphatic	64742-88-7	1 - 5
Xylenes (o-, m-, p- isomers)	1330-20-7	1 - 5
Ethyl benzene (contaminant)	100-41-4	< 0.5
Crystalline silica (cristobalite)	14464-46-1	< 0.5
Cobalt Compounds	Trade Secret	< 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.

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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 UpContain 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 TWAI	Wexico OEL (TWA)
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Stoddard solvent	TWA: 100 ppm	TWA: 100 ppm TWA: 525 mg/m ³ TWA: 500 ppm TWA: 2900 mg/m ³	20000 mg/m ³	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
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)	
Carbon black	TWA: 3 mg/m³ (inhalable fraction)	TWA: 3.5 mg/m ³	1750 mg/m ³	TWA: 3.5 mg/m ³	TWA/LMPE-PPT: 3.5 mg/m³ STEL/LMPE-CT: 7 mg/m³
Solvent naphtha (petroleum), medium aliphatic				TWA: 525 mg/m ³	
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
Crystalline silica (cristobalite)	TWA: 0.025 mg/m ³ (respirable fraction)	TWA: 0.05 mg/m ³ (respirable dust)	25 mg/m ³	TWA: 0.05 mg/m³ (respirable)	TWA/LMPE-PPT: 0.05 mg/m³ (respirable fraction)

Engineering Measures

Use ventilation adequate to keep exposures below recommended exposure limits. See

Personal Protective Equipment

Respiratory Protection

Eye Protection

Skin Protection

MSDS. In case of insufficient ventilation, wear suitable respiratory equipment.

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.

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.

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.

No information available

No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

Colored liquid Liquid **Appearance Physical State**

Characteristic **Odor Threshold** No information available Odor No information available **Autoignition Temperature** No information available Hq

Melting Point/Range >149 °C / >300 °F **Boiling point/Boiling Range** Freezing Point/Range No information available Solubility

No information available

Evaporation Rate Partition Coefficient No information available (n-octanol/water) No information available **Vapour Pressure** Vapour Density Heavier than air No information available Flammability (solid, gas)

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Flammability Limits in Air

Upper No information available Lower No information available **Photochemically Reactive** No

Flash Point 46 °C / 115 °F

Method Setaflash closed cup

Weight Per Gallon (lbs/gal) 9.75 **Specific Gravity** 1.17 VOC by weight % 31.23 VOC by volume % 39.79 VOC lbs/gal (less water) VOC grams/liter (less water) 365.32 3.05

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
Carbon black	>15400 mg/kg (Rat)	>3 g/kg(Rabbit)	
Solvent naphtha (petroleum), medium aliphatic	>5000 mg/kg (Rat)	3000 mg/kg(Rabbit)	>5.28 mg/L (Rat)4 h
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
Carbon black	A3	Group 2B		X
Ethyl benzene (contaminant)	A3	Group 2B		Х
Crystalline silica (cristobalite)		Group 1		Х
Cobalt Compounds		Group 2B		Х

Carbon black is classified as a carcinogen by the IARC (possibly carcinogenic to humans, Group 2B). In their evaluation of carbon black, IARC indicates exposure to carbon black, per se, does not occur when it remains bound within a product matrix, specifically, rubber, ink, or paint. Carbon black is present only in a bound form in this preparation.

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans

X - Present

OSHA: (Occupational Safety & Health Administration)

Sensitisation No information available No information available **Mutagenic Effects Reproductive Effects** No information available No information available **Developmental hazard** No information available **Teratogenicity**

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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. Central nervous system, Eyes, Kidney, Respiratory system, Skin.

Target Organ Effects

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
Carbon black			24h EC50 Daphnia magna: >5600 mg/L
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 **Bioaccumulation Mobility in Environmental Media**

No information available No information available 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.

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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

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	Х	Х
Barium sulfate	Х	X	X	Х
Carbon black	X	X	Х	Х
Solvent naphtha (petroleum), medium aliphatic	Not Listed	Not Listed	X	Not Listed
Xylenes (o-, m-, p- isomers)	X	X	Х	Х
Ethyl benzene (contaminant)	Х	X	X	X
Crystalline silica (cristobalite)	X	X	X	X
Cobalt Compounds	Not Listed	Not Listed	Х	Х

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
Carbon black	1333-86-4	1 - 5
2-Ethylhexanoic acid	149-57-5	< 0.5

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

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Component	WHMIS Classifications of Components	
Stoddard solvent	B3,D2B	
Barium sulfate	Uncontrolled product according to WHMIS classification criteria	
Carbon black	D2A	

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Solvent naphtha (petroleum), medium aliphatic	B3
Xylenes (o-, m-, p- isomers)	B2,D2A,D2B
Ethyl benzene (contaminant)	B2,D2A,D2B
Crystalline silica (cristobalite)	D2A

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
Cobalt Compounds	Part 1, Group 1 Substance

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

None known

HMIS: Health Flammability Reactivity PPE 1 * 2 0 X

16. OTHER INFORMATION

Revision Date May-07-2012

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