



Material Safety Data Sheet

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

Print Date Apr-08-2009

Revision Date Apr-08-2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product code 70159
Product name Permanent Blue
Product description 70000 Series Plasti-Vac 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 Viscous liquid
Flammable Properties Combustible liquid and vapor.
Emergency Overview Harmful. Irritant. May cause drowsiness and dizziness.

Eyes Moderately irritating to the eyes. The liquid splashed in the eyes may cause irritation and reversible damage.

Skin Harmful in contact with skin. May cause skin irritation and/or dermatitis. May be harmful if absorbed through skin. Causes skin irritation. Prolonged skin contact may defat the skin and produce dermatitis.

Inhalation Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Ingestion Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Diacetone alcohol	123-42-2	10 - 30
2-Butoxyethanol	111-76-2	10 - 30
Copper Phthalocyanine Compound	Trade Secret	5 - 10
Ethyl 3-Ethoxypropionate	763-69-9	5 - 10
Naphtha (petroleum), heavy aromatic	64742-94-5	5 - 10
Isophorone	78-59-1	5 - 10
Naphthalene (contaminant)	91-20-3	< 1
1,2,4-Trimethylbenzene (contaminant)	95-63-6	< 1
1,3,5-Trimethylbenzene (contaminant)	108-67-8	< 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

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.

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.
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	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. 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	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	Weight %	ACGIH TLV	OSHA PEL	Ontario TWAEV
Diacetone alcohol	10 - 30	TWA: 50 ppm	TWA: 50 ppm TWA: 240 mg/m ³	TWA: 240 mg/m ³ TWA: 50 ppm STEL: 360 mg/m ³ STEL: 75 ppm
2-Butoxyethanol	10 - 30	TWA: 20 ppm	TWA: 120 mg/m ³ TWA: 25 ppm Skin TWA: 50 ppm TWA: 240 mg/m ³	TWA: 20 ppm Skin
Ethyl 3-Ethoxypropionate	5 - 10			TWA: 300 mg/m ³ TWA: 50 ppm
Isophorone	5 - 10	Ceiling: 5 ppm	TWA: 4 ppm TWA: 23 mg/m ³ TWA: 25 ppm TWA: 140 mg/m ³	CEV: 28 mg/m ³ CEV: 5 ppm
Naphthalene (contaminant)	< 1	TWA: 10 ppm Skin STEL: 15 ppm	TWA: 50 mg/m ³ TWA: 10 ppm STEL: 15 ppm STEL: 75 mg/m ³	TWA: 10 ppm TWA: 52 mg/m ³ STEL: 15 ppm STEL: 78 mg/m ³
1,2,4-Trimethylbenzene (contaminant)	< 1	TWA: 25 ppm		TWA: 25 ppm TWA: 123 mg/m ³
1,3,5-Trimethylbenzene (contaminant)	< 0.5	TWA: 25 ppm		TWA: 123 mg/m ³ TWA: 25 ppm

Component	Weight %	NIOSH IDLH	Mexico OEL (TWA)
Diacetone alcohol	10 - 30	1800 ppm 10% LEL	TWA: 240 mg/m ³ TWA: 50 ppm STEL: 75 ppm STEL: 360 mg/m ³
2-Butoxyethanol	10 - 30	700 ppm	TWA: 120 mg/m ³ TWA: 26 ppm STEL: 360 mg/m ³ STEL: 75 ppm
Copper Phthalocyanine Compound	5 - 10	100 mg/m ³	
Isophorone	5 - 10	200 ppm	Peak: 25 mg/m ³ Peak: 5 ppm
Naphthalene (contaminant)	< 1	250 ppm	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 75 mg/m ³ STEL: 15 ppm
1,2,4-Trimethylbenzene (contaminant)	< 1		TWA: 125 mg/m ³ TWA: 25 ppm STEL: 35 ppm STEL: 170 mg/m ³
1,3,5-Trimethylbenzene (contaminant)	< 0.5		TWA: 125 mg/m ³ TWA: 25 ppm STEL: 35 ppm STEL: 170 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

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

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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	52°C / 125°F
Flammability Limits in Air		Method	Setaflash closed cup
Upper	No information available	Photochemically Reactive	Yes
Lower	No information available		
Weight Per Gallon (lbs/gal)	8.6	Specific Gravity	1.032
VOC by weight	59.25	VOC by volume	61.384
VOC lbs/gal	5.101	VOC grams/liter	611.193

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

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diacetone alcohol	4 g/kg (Rat)	13500 mg/kg (Rabbit)	
2-Butoxyethanol	470 mg/kg (Rat)	2270 mg/kg (Rat) 220 mg/kg (Rabbit)	2.21 mg/L (Rat) 4 h 450 ppm (Rat) 4 h
Ethyl 3-Ethoxypropionate	3200 mg/kg (Rat)	10 mL/kg (Rabbit)	
Naphtha (petroleum), heavy aromatic	5000 mg/kg (Rat)	2000 mg/kg (Rabbit)	590 mg/m ³ (Rat) 4 h
Isophorone	1870 mg/kg (Rat)	1390 mg/kg (Rat)	7 mg/L (Rat) 4 h
Naphthalene (contaminant)	490 mg/kg (Rat)	2500 mg/kg (Rat) 20 g/kg (Rabbit)	340 mg/m ³ (Rat) 1 h
1,2,4-Trimethylbenzene (contaminant)	3400 mg/kg (Rat) 8970 mg/kg (Rat)	3160 mg/kg (Rabbit)	18 g/m ³ (Rat) 4 h
1,3,5-Trimethylbenzene (contaminant)	8970 mg/kg (Rat) 5000 mg/kg (Rat)		24 g/m ³ (Rat) 4 h

Chronic Toxicity

Component	ACGIH	IARC	NTP	OSHA
2-Butoxyethanol	A3			
Isophorone	A3			
Naphthalene (contaminant)		Group 2B	Reasonably Anticipated	X

Legend:

ACGIH: (American Conference of Governmental Industrial Hygienists)
 IARC: (International Agency for Research on Cancer)
 NTP: (National Toxicity Program)
 OSHA: (Occupational Safety & Health Administration)

A3 - Animal Carcinogen
 Group 2B - Possibly Carcinogenic to Humans
 Reasonably Anticipated to be a Human Carcinogen
 X - Present

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	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	Blood, Central nervous system, Eyes, Hematopoietic System, Kidney, Liver, 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
Diacetone alcohol		96 Hr LC50 <i>Lepomis macrochirus</i> : 420 mg/L	48 Hr EC50 water flea: 8750 mg/L
2-Butoxyethanol		96 Hr LC50 <i>Lepomis macrochirus</i> : 2950 mg/L	24 Hr EC50 water flea: 1720 mg/L; 24 Hr LC50 <i>Daphnia magna</i> : 1698-1940 mg/L
Copper Phthalocyanine Compound		48 Hr LC50 <i>Oryzias latipes</i> : >100 mg/L [static]	
Ethyl 3-Ethoxypropionate		96 Hr LC50 <i>Pimephales promelas</i> : 62 mg/L [static]	48 Hr EC50 <i>Daphnia magna</i> : 970 mg/L
Naphtha (petroleum), heavy aromatic	72 Hr EC50 <i>Skeletonema costatum</i> : 2.5 mg/L	96 Hr LC50 <i>Pimephales promelas</i> : 19 mg/L [static]; 96 Hr LC50 <i>Oncorhynchus mykiss</i> : 2.34 mg/L; 96 Hr LC50 <i>Lepomis macrochirus</i> : 1740 mg/L [static]	48 Hr EC50 <i>Daphnia magna</i> : 0.95 mg/L
Isophorone	72 Hr EC50 <i>Scenedesmus subspicatus</i> : 475.4 mg/L; 96 Hr EC50 <i>Selenastrum capricornutum</i> : 126 mg/L	96 Hr LC50 <i>Pimephales promelas</i> : 145 mg/L [flow-through]; 96 Hr LC50 <i>Lepomis macrochirus</i> : 220 mg/L [static]	48 Hr EC50 <i>Daphnia magna</i> : 117 mg/L
Naphthalene (contaminant)	96 Hr EC50 <i>Skeletonema costatum</i> : 0.4 mg/L	96 Hr LC50 <i>Pimephales promelas</i> : 1.99 mg/L [static]	48 Hr EC50 water flea: 2.16 mg/L
1,2,4-Trimethylbenzene (contaminant)		96 Hr LC50 <i>Pimephales promelas</i> : 7.72 mg/L [flow-through]	48 Hr EC50 <i>Daphnia magna</i> : 6.14 mg/L
1,3,5-Trimethylbenzene (contaminant)		96 Hr LC50 <i>Pimephales promelas</i> : 3.48 mg/L 96 Hr LC50 <i>Pimephales promelas</i> : 7.72 mg/L [flow-through]	24 Hr EC50 water flea: 50 mg/L

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

Component	log Pow
Diacetone alcohol	1.03
2-Butoxyethanol	0.81
Copper Phthalocyanine Compound	6.6
Ethyl 3-Ethoxypropionate	1.35
Naphtha (petroleum), heavy aromatic	2.9 - 6.1
Isophorone	1.66

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 Related Material, 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 Related Material, 3, III

IMDG/IMO

UN1210, Printing Ink Related Material, 3, III

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
2-Butoxyethanol	111-76-2	10 - 30	1.0
Naphthalene (contaminant)	91-20-3	< 1	0.1

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

This product contains the following HAPs:

Component	CAS-No	Weight %
Isophorone	78-59-1	5 - 10

U.S. State Regulations

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer. WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Component	CAS-No	Weight %
Toluene	108-88-3	< 0.001
Benzene	71-43-2	< 0.0001
Ethyl acrylate	140-88-5	< 0.001
Formaldehyde	50-00-0	< 0.01
Naphthalene (contaminant)	91-20-3	< 1
Quartz, crystalline silica	14808-60-7	< 0.01

State Right-to-Know

Component	Minnesota	Florida	New Jersey	Pennsylvania	Massachusetts	Rhode Island
Diacetone alcohol	Not Listed	Not Listed	X	X	X	X

2-Butoxyethanol	Not Listed	Not Listed	X	X	X	X
Copper Phthalocyanine Compound	Not Listed	Not Listed	X	X	Not Listed	Not Listed
Ethyl 3-Ethoxypropionate	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Naphtha (petroleum), heavy aromatic	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Isophorone	Not Listed	Not Listed	X	X	X	X
Naphthalene (contaminant)	Not Listed	Not Listed	X	X	X	X
1,2,4-Trimethylbenzene (contaminant)	Not Listed	Not Listed	X	X	X	X
1,3,5-Trimethylbenzene (contaminant)	Not Listed	Not Listed	X	X	X	X

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
Diacetone alcohol	B3, D2B
2-Butoxyethanol	B3, D1A, D2B
Copper Phthalocyanine Compound	Uncontrolled product according to WHMIS classification criteria
Ethyl 3-Ethoxypropionate	B3, D2B
Isophorone	B3, D2B
Naphthalene (contaminant)	B4, D2A
1,2,4-Trimethylbenzene (contaminant)	B3
1,3,5-Trimethylbenzene (contaminant)	B3

Component	NPRI - National Pollutant Release Inventory
Diacetone alcohol	Part 4 Substance
2-Butoxyethanol	Part 4 Substance Part 1, Group 1 Substance; Part 5 Substance
Copper Phthalocyanine Compound	Part 1, Group 1 Substance
Ethyl 3-Ethoxypropionate	Part 4 Substance
Naphtha (petroleum), heavy aromatic	Part 5 Substance Part 4 Substance
Isophorone	Part 4 Substance
Naphthalene (contaminant)	Part 1, Group 1 Substance Part 4 Substance
1,2,4-Trimethylbenzene (contaminant)	Part 1, Group 1 Substance; Part 5 Substance Part 5 Substance (except 1,2,4-Trimethyl benzene) Part 4 Substance
1,3,5-Trimethylbenzene (contaminant)	Part 5 Substance (except 1,2,4-Trimethyl benzene) 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 2*	Flammability 2	Reactivity 0	PPE X
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16. OTHER INFORMATION

Revision Date Apr-08-2009

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