SAFETY DATA SHEET

Print Date	Revision Date	Revision Number
Jun-01-2015	May-31-2015	1

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

Product identifier

Product code **PX24**

Product name **Black**

Product category **PX Series Perma-Flex Flock Adhesive 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
Nazdar Company
8501 Hedge Lane Terrace
Shawnee, KS 66227
Tel: 1-913-422-1888
Tel: 1-800-677-4657
Fax: 1-913-422-2294
www.nazdar.com

UNITED KINGDOM
Nazdar Limited
Barton Road
Heaton Mersey
Stockport, England SK4 3EG
Tel: +44 161 442 2111

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

Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1 - (H317)
Carcinogenicity	Category 2 - (H351)
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

H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H351 - Suspected of causing cancer
H412 - Harmful to aquatic life with long lasting effects
H226 - Flammable liquid and vapor

Precautionary Statements
P280 - Wear eye protection/ face protection
P280 - Wear protective gloves/protective clothing/eye protection/face protection
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)
Harmful to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Component	CAS-No	Weight %	Trade Secret	Note
Stoddard solvent	8052-41-3	10 - 30	*	
Solvent naphtha (petroleum), medium aliphatic	64742-88-7	5 - 10	*	
Carbon black	1333-86-4	1 - 5	*	
Xylenes (o-, m-, p- isomers)	1330-20-7	1 - 5	*	
Ethyl alcohol	64-17-5	1 - 5	*	
Methyl ethyl ketoxime	96-29-7	1 - 5	*	
Ethyl benzene (constituent)	100-41-4	< 0.5	*	1
Cobalt Compounds	Trade Secret	< 0.5	*	

*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

Handling Use 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
Stoddard solvent 8052-41-3	TWA: 100 ppm
Carbon black 1333-86-4	TWA: 3 mg/m^3 (inhalable fraction)
Xylenes (o-, m-, p- isomers) 1330-20-7	TWA: 100 ppm STEL: 150 ppm
Ethyl alcohol 64-17-5	STEL: 1000 ppm
Ethyl benzene (constituent) 100-41-4	TWA: 20 ppm

Component	OSHA PEL

Stoddard solvent 8052-41-3	TWA: 100 ppm TWA: 525 mg/m³ TWA: 500 ppm TWA: 2900 mg/m³
Carbon black 1333-86-4	TWA: 3.5 mg/m³
Xylenes (o-, m-, p- isomers) 1330-20-7	TWA: 100 ppm TWA: 435 mg/m³ STEL: 150 ppm STEL: 655 mg/m³
Ethyl alcohol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m³
Ethyl benzene (constituent) 100-41-4	TWA: 100 ppm TWA: 435 mg/m³ STEL: 125 ppm STEL: 545 mg/m³

Component	**Ontario TWAEV**
Stoddard solvent 8052-41-3	TWA: 525 mg/m³
Solvent naphtha (petroleum), medium aliphatic 64742-88-7	TWA: 525 mg/m³
Carbon black 1333-86-4	TWA: 3.5 mg/m³
Xylenes (o-, m-, p- isomers) 1330-20-7	TWA: 100 ppm STEL: 150 ppm
Ethyl alcohol 64-17-5	STEL: 1000 ppm
Ethyl benzene (constituent) 100-41-4	TWA: 100 ppm STEL: 125 ppm

Component	**Mexico OEL (TWA)**
Stoddard solvent 8052-41-3	TWA/LMPE-PPT: 100 ppm TWA/LMPE-PPT: 523 mg/m³ STEL/LMPE-CT: 200 ppm STEL/LMPE-CT: 1050 mg/m³
Carbon black 1333-86-4	TWA/LMPE-PPT: 3.5 mg/m³ STEL/LMPE-CT: 7 mg/m³
Xylenes (o-, m-, p- isomers) 1330-20-7	TWA/LMPE-PPT: 100 ppm TWA/LMPE-PPT: 435 mg/m³ STEL/LMPE-CT: 150 ppm STEL/LMPE-CT: 655 mg/m³
Ethyl alcohol 64-17-5	TWA/LMPE-PPT: 1000 ppm TWA/LMPE-PPT: 1900 mg/m³
Ethyl benzene (constituent) 100-41-4	TWA/LMPE-PPT: 100 ppm TWA/LMPE-PPT: 435 mg/m³ STEL/LMPE-CT: 125 ppm STEL/LMPE-CT: 545 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 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

Property	**Values**	**Remarks • Method**
pH		No data available
Melting point/freezing point		No data available
Boiling point/Boiling Range	> 149 °C / 300 °F	
Flash Point	49 °C / 120 °F	Pensky Martens Closed Cup (PMCC)
Evaporation rate		No data available
Flammability Limit in Air		
Upper flammability limit		No data available
Lower flammability limit		No data available
Vapor Pressure		No data available
Vapor Density		No data available
Specific Gravity	0.97	
Water Solubility		No data available
Solubility in other solvents		No data available
Partition coefficient: n-octanol/water		No data available
Autoignition Temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available

Explosive Properties No data available
Oxidizing Properties No data available

Other Information

Photochemically Reactive No
Weight Per Gallon (lbs/gal) 8.05

VOC by weight % (less water)	VOC by volume % (less water)	VOC lbs/gal (less water)	VOC grams/liter (less water)
41.01	43.93	3.3	395.82

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

Inhalation	There is no data for this product.
Eye Contact	There is no data for this product.
Skin Contact	There is no data for this product.
Ingestion	There is no data for this product.

Component	Oral LD50
Solvent naphtha (petroleum), medium aliphatic 64742-88-7	>5000 mg/kg (Rat)
Carbon black 1333-86-4	>15400 mg/kg (Rat)
Xylenes (o-, m-, p- isomers) 1330-20-7	4300 mg/kg (Rat)
Ethyl alcohol 64-17-5	7060 mg/kg (Rat)
Methyl ethyl ketoxime 96-29-7	930 mg/kg (Rat)
Ethyl benzene (constituent) 100-41-4	3500 mg/kg (Rat)

Component	LD50 Dermal
Solvent naphtha (petroleum), medium aliphatic 64742-88-7	3000 mg/kg (Rabbit)
Carbon black 1333-86-4	>3 g/kg (Rabbit)
Xylenes (o-, m-, p- isomers) 1330-20-7	>1700 mg/kg (Rabbit)
Methyl ethyl ketoxime 96-29-7	0.2 mg/kg (Rabbit)
Ethyl benzene (constituent) 100-41-4	15354 mg/kg (Rabbit)

Component	Inhalation LC50
Solvent naphtha (petroleum), medium aliphatic 64742-88-7	>5.28 mg/L (Rat) 4 h
Xylenes (o-, m-, p- isomers) 1330-20-7	5000 ppm (Rat) 4 h 47635 mg/L (Rat) 4 h
Ethyl alcohol 64-17-5	124.7 mg/L (Rat) 4 h
Methyl ethyl ketoxime 96-29-7	20 mg/L (Rat) 4 h
Ethyl benzene (constituent) 100-41-4	17.2 mg/L (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.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH
Carbon black 1333-86-4	A3
Ethyl benzene (constituent) 100-41-4	A3

Component	IARC
Carbon black 1333-86-4	Group 2B
Ethyl benzene (constituent) 100-41-4	Group 2B
Cobalt Compounds	Group 2B

Component	OSHA
Carbon black 1333-86-4	X
Ethyl benzene (constituent) 100-41-4	X
Cobalt Compounds	X

Numerical measures of toxicity - Product Information

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

ATEmix (oral) 28,622.00 mg/kg
ATEmix (dermal) 18,144.00 mg/kg
ATEmix (inhalation-dust/mist) 40.00 mg/l
ATEmix (inhalation-vapor) 668.00 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity
None known

0.01% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Component	Algae/aquatic plants
Solvent naphtha (petroleum), medium aliphatic 64742-88-7	96h EC50 Pseudokirchneriella subcapitata: 450 mg/L
Methyl ethyl ketoxime 96-29-7	72h EC50 Desmodesmus subspicatus: 83 mg/L
Ethyl benzene (constituent) 100-41-4	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

Component	Fish
Solvent naphtha (petroleum), medium aliphatic 64742-88-7	96h LC50 Pimephales promelas: 800 mg/L [static]
Ethyl alcohol 64-17-5	96h LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static] 96h LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through] 96h LC50 Pimephales promelas: >100 mg/L [static]
Methyl ethyl ketoxime 96-29-7	96h LC50 Leuciscus idus: 320 - 1000 mg/L [static] 96h LC50 Pimephales promelas: 777 - 914 mg/L [[flow-through]] 96h LC50 Poecilia reticulata: 760 mg/L [static]
Ethyl benzene (constituent)	96h LC50 Oncorhynchus mykiss: 11.0 - 18.0 mg/L [static]

100-41-4	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]

Component	Crustacea
Solvent naphtha (petroleum), medium aliphatic 64742-88-7	48h EC50 Daphnia magna: >100 mg/L
Carbon black 1333-86-4	24h EC50 Daphnia magna: >5600 mg/L
Ethyl alcohol 64-17-5	48h LC50 Daphnia magna: 9268 - 14221 mg/L 24h EC50 Daphnia magna: 10800 mg/L
Methyl ethyl ketoxime 96-29-7	48h EC50 Daphnia magna: 750 mg/L
Ethyl benzene (constituent) 100-41-4	48h EC50 Daphnia magna: 1.8 - 2.4 mg/L

Persistence and Degradability
No information available.

Bioaccumulation
No information available.

Component	Partition coefficient
Xylenes (o-, m-, p- isomers) 1330-20-7	2.96
Ethyl alcohol 64-17-5	-0.32
Methyl ethyl ketoxime 96-29-7	0.65
Ethyl benzene (constituent) 100-41-4	3.118

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].

UN/ID no. UN1210
Proper Shipping Name Printing Ink
Hazard Class 3
Packing Group III

ICAO / IATA / IMDG / IMO

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

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 %
Xylenes (o-, m-, p- isomers)	1330-20-7	1 - 5

U.S. State Regulations

Component	Massachusetts Right To Know
Stoddard solvent 8052-41-3	X
Carbon black 1333-86-4	X
Xylenes (o-, m-, p- isomers) 1330-20-7	X
Ethyl alcohol 64-17-5	X
Ethyl benzene (constituent) 100-41-4	X

Component	Minnesota Right To Know
Stoddard solvent 8052-41-3	X
Carbon black 1333-86-4	X
Xylenes (o-, m-, p- isomers) 1330-20-7	X
Ethyl alcohol 64-17-5	X
Methyl ethyl ketoxime 96-29-7	X
Ethyl benzene (constituent) 100-41-4	X

Component	New Jersey Right To Know
Stoddard solvent 8052-41-3	X
Solvent naphtha (petroleum), medium aliphatic 64742-88-7	X
Carbon black 1333-86-4	X
Xylenes (o-, m-, p- isomers) 1330-20-7	X
Ethyl alcohol 64-17-5	X
Ethyl benzene (constituent)	X

100-41-4	
Cobalt Compounds	X

Component	**Pennsylvania Right To Know**
Stoddard solvent 8052-41-3	X
Carbon black 1333-86-4	X
Xylenes (o-, m-, p- isomers) 1330-20-7	X
Ethyl alcohol 64-17-5	X
Ethyl benzene (constituent) 100-41-4	X
Cobalt Compounds	X

California Prop. 65

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**
Carbon black	Carcinogen
Ethyl benzene (constituent)	Carcinogen

This product contains carbon black in a non-respirable form. Inhalation of carbon black is unlikely to occur from exposure to this product

Canada

Component	**NPRI - National Pollutant Release Inventory**
Stoddard solvent 8052-41-3	Part 5, Other Groups and Mixtures
Solvent naphtha (petroleum), medium aliphatic 64742-88-7	Part 5, Other Groups and Mixtures
Xylenes (o-, m-, p- isomers) 1330-20-7	Part 1, Group A Substance total of all isomers of Xylene, including m-Xylene, CAS No. 108-38-3, o-Xylene, CAS No. 95-47-6, and p-Xylene, CAS No. 106-42-3 Part 5, Isomer Groups total of all isomers of Xylene, including m-Xylene, CAS No. 108-38-3, o-Xylene, CAS No. 95-47-6, and p-Xylene, CAS No. 106-42-3 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
Ethyl alcohol 64-17-5	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
Ethyl benzene (constituent) 100-41-4	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
Cobalt Compounds	Part 1, Group A Substance total of the pure element and the equivalent weight of the element contained in any compound, alloy or mixture

16. OTHER INFORMATION

HMIS:	**Health**	**Flammability**	**Reactivity**	**Personal Protection**
	2 *	2	0	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-31-2015

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