

MATERIAL SAFETY DATA SHEET

MSDS ID#: 100236

Date Prepared: September 3, 2004

Revision: February 22, 2005

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: DPI-411 VL BLACK INK

Product Code: I0522

Colors Covered: Black

Supplier Name: Matthews International Corporation

Address: 101 Fairview Avenue

City: Pittsburgh

State/Zip: Pennsylvania, USA, 15238

Phone: (412)665-2500

Fax: (412)828-4545

24 Hour Emergency Phone: (412)456-7499

2. COMPOSITION/INFORMATION ON INGREDIENTS

<input type="checkbox"/> Substance			<input type="checkbox"/> Mixture		
<u>Hazardous Components</u>	<u>Percent</u>	<u>CAS No.</u>	<u>TLV</u>	<u>R-Phrase</u>	<u>S-Phrases</u>
Ethyl acetate	90-95	141-78-6	400 ppm	R11	S16, S23, S29, S33
n-Propanol	1-5	71-23-8	200 ppm	R11, R41, R67	S7, S16, S24, S26, S39

3. HAZARDS IDENTIFICATION

Most Important Hazards: Flammable liquid and vapor

Main Symptoms of Overexposure: EYES- High vapor concentrations may cause irritation; SKIN- Prolonged or repeated contact may cause drying, cracking, or irritation; INHALATION- High vapor concentrations may cause drowsiness and irritation; INGESTION- Expected to be a low ingestion hazard. HMIS: H-1, F-3, R-0

4. FIRST AID MEASURES

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Skin Contact: Wash with soap and water. Remove contaminated clothing and shoes. get medical attention if symptoms occur. Wash contaminated clothing and shoes before reuse.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes holding eyelids open. Get medical attention.

Ingestion: Seek medical advice.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Water spray, dry chemical, carbon dioxide, alcohol foam.

Specific Hazards: Flammable. Vapors may cause a flash fire or ignite explosively. Vapors may travel a considerable distance to a source of ignition and flash back. Prevent buildup of vapors to explosive concentrations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Eliminate all ignition sources. Wash thoroughly after handling.

Environmental precautions: Prevent runoff from entering drains, sewers or streams.

Methods of cleaning up: Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. For large spills: use water spray to disperse vapors and dilute spill to a nonflammable mixture.

7. HANDLING AND STORAGE

Handling-Precautions: Avoid breathing high vapor concentrations. Avoid prolonged or repeated skin contact.

Safe handling Advice: Keep away from heat, sparks and open flames. Flammable liquid. Use with adequate ventilation.

Storage-Conditions: Keep container closed. Use with adequate ventilation. PROHIBIT smoking from these areas.

Incompatible Products: Strong oxidizing agents, strong acids and bases.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Measures: Good general ventilation (typically 10 air changes/hour) should be used. Ventilation rates should be matched to conditions. Use proper enclosures, exhaust ventilation, or other engineering controls to maintain airborne levels below recommended limits.

Personal Protective Equipment: Eliminate all ignition sources. Wash thoroughly after handling.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Type: Organic vapor.

Hand Protection: Impervious gloves

Eye Protection: Safety glasses with side shields.

Skin and Body Protection: Recommended decontamination facilities: eye bath, washing facilities.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Flashpoint: -4° C (24° F)

Density: 0.91

Vapor Density: >1

Boiling Point: N/A

V.O.C.: 870 g/l

Color: Black

Autoignition temperature: N/A

Vapor Pressure: 86 mm Hg (114 mbar) @ 20° C (*for Ethyl Acetate*)

Solubility in Water: moderate

Freezing Point: N/A

Evaporation rate(Butyl Acetate=1): Faster

Odor: sweet, ester

pH: N/A

10. STABILITY AND REACTIVITY

Stable: Yes **Conditions to avoid:** Avoid heat, sparks and open flames.

Materials to avoid: Material can react with strong oxidizing agents, strong acids and bases.

Hazardous decomposition products: Carbon dioxide, carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Oral LD50 (rat)- 5.6 g/kg; Inhalation LC50 (rat)- 16,000 ppm/6 hours; Dermal LD50 (rabbit)- >20 ml/kg; Skin irritation (rabbit)- very slight; Skin sensitization (human)- none; Eye irritation (rabbit)- slight (*for Ethyl Acetate*)

Chronic Toxicity: Inhalation study (11 weeks, guinea pig)- No observed effect level: 2000 ppm (*for Ethyl Acetate*); Repeated skin application (rabbit)- slight irritation, Eye irritation (rabbit)- moderate, Oral study (4 days, rat)- no observed effect level: 2160 mg/kg/day (*for n-Propanol*)

Sensitization: No

Specific Effects: No

12. ECOLOGICAL INFORMATION

Possible Environmental Effects: High biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems. A low potential to affect aquatic organisms. A low potential to persist in the environment. A low potential to bioconcentrate. When diluted with water, this material released directly or indirectly into the environment is not expected to have a significant impact. BOD-5: 1.24 g oxygen/g; COD: 1.54 g oxygen/g; 96 hour LC-50 (daphnid): 2500 mg/L; 48 hour LC-50 (golden orfe): 270 mg/L (*for Ethyl Acetate*)

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of in accordance with all local, state and federal regulations.

14. TRANSPORT INFORMATION

Land: (DOT)- regulated, Flammable liquid, Class 3, packaging group II, Proper Shipping Name: Printing Ink, UN 1210

Inland Waterways: (AND/R)- N/A

Sea: (IMDG)- regulated, Flammable liquid; Class 3, Packing Group II; Proper Shipping Name- Printing Ink, UN 1210

Air: (ICAO/IATA)- regulated, Flammable liquid; Class 3, Packing Group II; Proper Shipping Name- Printing Ink, UN 1210

15. REGULATORY INFORMATION

Hazard and Safety Information: CA Prop 65- none; PA Hazardous substance list: n-Propanol, Ethyl Acetate- listed; WHMIS: n-Propanol- listed, controlled substance, classification- B/2, D/2/B. Ethyl Acetate- listed, controlled substance, classification- B/2; IARC, ACGIH- not listed; SARA 313- none; SARA 311,312- fire hazard, acute and chronic health hazard; EINECS: Ethyl Acetate- #205-500-4, n-Propanol- #200-746-9; **Ethyl Acetate:** R11- Highly flammable, S16- Keep away from sources of ignition - No smoking, S23- Do not breathe gas/fumes/vapor/spray, S29- Do not empty into drains, S33- Take precautionary measures against static discharges, **n-Propanol:** R11- Highly flammable, R41- Risk of serious damage to eyes, R67- Vapors may cause drowsiness and dizziness; S7- Keep container tightly closed, S16- Keep away from sources of ignition - No smoking, S24- Avoid contact with the skin, S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice, S39- Wear eye/face protection

Ozone Depleting Chemicals Present: None

16. OTHER INFORMATION

Containers of this material may be hazardous when emptied, all hazard precautions given in the data sheet must be observed. The information contained herein is based upon what we believe to be reliable data. However, we make no warranty or guarantees, expressed or implied, concerning the accuracy of such information and disclaim all liability from reliance thereon. You should evaluate the information through your own sources prior to use.

Reference ISO 11014-1