

Material Safety Data Sheet

This document consists of two Material Safety Data Sheets comprising all colors of
DURA-INK #15 (formerly Sharpie #15).

Section 1 Product and Company Identification

Product Name: **DURA-INK #15** (formerly Sharpie #15)
Black

Revision #: 2.3

Date Prepared: June 14, 1993

Date Revised: June 14, 2001

Manufacturer:

LA-CO INDUSTRIES, Inc. *Markal Co.*

1201 Pratt Blvd.

Elk Grove Village, IL, USA 60007-5746

Information Telephone: 847-956-7600

Emergency Telephone: Call CHEMTREC

USA 800-424-9300

International (Call Collect) 1-703-527-3887

Chemical Formula: Mixture

CAS No.: Not Applicable. **Derivation:** Not Applicable.

Synonyms: Not Applicable.

General Use: General marking

Supplier/Importer:

Section 2 Composition/Information on Ingredients

Ingredient

n-Propanol^{3,4,5,6}

CAS No.

71-23-8

%

50 - 85

ACGIH: TWA = 200 ppm, STEL = 250 ppm

OSHA: TWA = 200 ppm

Clean Air Act Section 111 Volatile Organic Compound

n-Butanol^{1,3,4,5,6}

71-36-3

0 - 20

ACGIH: ceiling = 50 ppm

OSHA: TWA = 100 ppm

EPA: CERCLA RQ = 5000 lbs., EPCRA section 313 de minimis concentration = 1.0%

Clean Air Act Section 111 Volatile Organic Compound

Diacetone Alcohol^{3,4,5,6}

123-42-2

0 - 20

ACGIH: ceiling = 50 ppm

OSHA: TWA = 50 ppm

Clean Air Act Section 111 Volatile Organic Compound

(For Section 2 footnotes: See Section 15)

Section 3 Hazards Identification

EMERGENCY OVERVIEW: This product is not considered toxic under U.S. Federal Hazardous Substances Act regulations, title 16, Part 1500. This product is considered safe when used under normal use conditions. The U.S. OSHA Hazard Communication Standard does not apply to this product. The reason for the exemption is contained in 29 CFR, Part 1910.1200, (b) (6) (ix), as amended July 1, 1994 per U.S. Federal Register.

POTENTIAL HEALTH EFFECTS

Primary Exposure Routes: None.

Acute Effects

Eyes: Not applicable.

Chronic Effects

Eyes: Not applicable.

Product Name:	DURA-INK #15 (formerly Sharpie #15)	
	Black	
Revision #: 2.3	Date Prepared: June 14, 1993	Date Revised: June 14, 2001

Skin: Not applicable.	Skin: Not applicable.
Ingestion: Not applicable.	Ingestion: Not applicable.
Inhalation: Not applicable.	Inhalation: Not applicable.
Carcinogenicity: Not Applicable.	
Target Organ Effects: Not Applicable.	
Medical Conditions Aggravated by Long-Term Exposure: Not Determined.	
Other Information: Not Applicable.	

Section 4 First Aid

Eye Contact: Not applicable.
Skin Contact: Not applicable.
Ingestion: Not applicable.
Inhalation: Not applicable.
Other Information: None.

Section 5 Fire Fighting Measures

Flash Point (method): 71°F / 22°C for n-propanol (closed cup ASTM D93)
Autoignition Temperature: Not Determined.
LEL: 2.2% **UEL:** 14.0% for n-propanol
Flammability Classification: NFPA Class IC for n-propanol
Extinguishing Media: Carbon dioxide (CO₂), dry chemical, foam, or water spray.
Hazardous Combustion Products: Oxides of carbon.
Unusual Fire or Explosion Hazards: None Known.
Fire-Fighting Instructions/Equipment: Keep personnel removed and upwind of any fire. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water spray may be used reduce intensity of flames and to dilute spills to non-flammable mixture.

Section 6 Accidental Release Measures

Use recommended personal protective equipment (see Section 8). Wipe up with absorbent material.

Section 7 Handling and Storage

Handling Precautions: Use recommended personal protective equipment (see Section 8). Do not shake marker. Wash thoroughly after handling.
Storage Requirements: Store away from incompatible chemicals (see Sec. 10). Store in a cool, dry area.

Section 8 Exposure Controls/Personal Protection

Eye/Face Protection: None under normal use conditions.
Skin/Hand Protection: None under normal use conditions.
Respiratory Protection: None under normal use conditions.
Other Equipment: None under normal use conditions.
Engineering Controls: None under normal use conditions.
Administrative Controls: Users of this product must be properly trained and qualified in its use.
Other Information: None.

Product Name:	DURA-INK #15 (formerly Sharpie #15)	
	Black	
Revision #: 2.3	Date Prepared: June 14, 1993	Date Revised: June 14, 2001

Section 9 Physical and Chemical Properties

Appearance/Physical State: Liquid ink absorbed in felt reservoir.
Odor: Alcohol-like
Odor Threshold (ppm): Not Determined.
Specific Gravity (H₂O = 1): 0.85 - 0.90
Solubility - Water: Partially miscible.
 - Fat: Soluble
Coefficient of Water/Oil Solubility: About 1
Partition Coefficient (n-octanol/water): About 1
pH: Not applicable.
Melting Point: Not Determined.
Boiling Point: 207°F / 97°C for n-propanol
Vapor Pressure (mm Hg at 20°C): 13 for n-propanol
Vapor Density (Air = 1): Not Determined.
Evaporation Rate (n-BuAc=1): 1.3
V.O.C.: 79% - 93%(w/w), 81% - 94%(v/v), 5.3 - 6.3 lbs./gal.(U.S.), 0.64 - 0.75 kg/l
Flash Point (method): (see Section 5)
Autoignition Temperature: (see Section 5)
Flammability Classification: (see Section 5)
Unusual Fire or Explosion Hazards: (see Section 5)
Oxidizing Properties: Not Applicable.
Other Information: None.

Section 10 Stability and Reactivity

Chemical Stability: Stable
Hazardous Polymerization: Will not occur.
Conditions to Avoid: None Known.
Chemicals to Avoid: Strong acids, alkalis, and oxidizers.
Hazardous Decomposition Products (non-thermal): Not Determined.

Section 11 Toxicological Information

Sensitization to Product: Not Applicable.
Irritancy of Product: Not applicable.
Reproductive Toxicity: Not Applicable.
Teratogenicity: Not Applicable.
Mutagenicity: Not Applicable.

Further hazard information, if applicable, may be found in Section 3. Toxicological information regarding individual ingredients, if applicable, may be found in Section 2.

Section 12 Ecological Information

Mobility: Not Determined.
Degradability: Not Determined.
Accumulation: Not Determined.
Ecotoxicity: Not Determined.

Product Name:	DURA-INK #15 (formerly Sharpie #15)	
	Black	
Revision #: 2.3	Date Prepared: June 14, 1993	Date Revised: June 14, 2001

Other Adverse Effects: Not Determined.

Section 13 Disposal Considerations

Dispose of in accordance with all applicable regulations.

Section 14 Transport Information

D.O.T. (U.S.)

Proper Shipping Name: Not Regulated.

Hazard Class or Division: Not Regulated.

Hazard Label: Not Regulated.

I.D. Number: Not Regulated.

TDG (Canada): Not Regulated.

IATA: Not Regulated.

ICAO: Not Regulated.

IMO: Not Regulated.

Australian Code for the Transport of Dangerous Goods

Dangerous Goods Class and Subsidiary Risk: Not Determined.

Section 15 Regulatory Information

Footnotes for Section 2:

- 1 Subject to the reporting requirements of SARA Title III, Section 313.
- 2 Appears on the California Safe Drinking Water and Toxic Enforcement Act (Prop. 65) Substances List.
- 3 Appears on the Massachusetts Substances List.
- 4 Appears on the New Jersey Right-To-Know Hazardous Substances List.
- 5 Appears on the Pennsylvania Hazardous Substances List.
- 6 Appears on the Canadian WHMIS Ingredient Disclosure List.

U.S.A.

Federal Hazardous Substance Labeling Act: This product meets the requirements for pens and markers because it is a porous-tip ink-marking device constructed so that a) the ink is held within an absorbent material so that no free liquid is within the device, b) under reasonably foreseeable conditions of manipulation and use the ink will emerge only through the porous writing nib, and c) the device has a capacity of not more than 10g of ink which has a single dose oral LD50 of not less than 2.5 g/kg of body weight of the test animal.

OSHA Hazard Status: The U.S. OSHA Hazard Communication Standard does not apply to this product. The reason for the exemption is contained in 29 CFR, Part 1910.1200, (b) (6) (ix), as amended July 1, 1994 per U.S. Federal Register.

EPA SARA sec. 311/312 Hazard Categories: Fire Hazard.

Toxic Substances Control Act (TSCA): All ingredients contained in this product are listed on the U.S. EPA TSCA Chemical Substance Inventory.

HMIS Rating: Health 2, Flammability 3, Reactivity 0

NFPA Rating: Health 2, Flammability 3, Reactivity 0

CANADA

WHMIS Status: This product is considered to be hazardous as defined by Canadian WHMIS Controlled Products Regulations.

WHMIS Rating: B2

WHMIS Risk Phrases: Flammable liquid.

WHMIS Precautionary Statements: Keep away from sources of ignition.

Product Name:	DURA-INK #15 (formerly Sharpie #15) Black	
Revision #: 2.3	Date Prepared: June 14, 1993	Date Revised: June 14, 2001

Domestic Substances List (DSL): All ingredients contained in this product are listed on the Canadian EPA (CEPA) Domestic Substances List (DSL).

E.U.

European Inventory of Existing Chemical Substances (EINECS): All ingredients contained in this product are listed on the European Inventory of Existing Chemical Substances (EINECS).

Categories of Danger (Labeling Information): Not regulated per regulation 9 (7) of CHIP.

Risk (R) Phrases: None.

Safety (S) Phrases: None.

AUSTRALIA

Worksafe Australia Status: Not Determined.

HAZCHEM Code: Not Determined.

Poisons Schedule Number: Not Determined.

Further regulatory information regarding individual ingredients, if applicable, may be found in Section 2.

This product has been classified in accordance with the hazard criteria of the U.S. OSHA Hazard Communication Standard, the Canadian WHMIS Controlled Products Regulations, the British CHIP2 regulation 6, and the Australian NMRCWHS. This MSDS contains the information required by the above regulations and conforms to ANSI Z400.1-1993.

Section 16

Other Information

MSDS Prepared By: Director of Chemical Safety

The information contained herein is based on data available to us and is accurate and reliable to the best of our knowledge and belief. However, LA-CO Industries, Inc. makes no representations as to its completeness or accuracy. Information is supplied on condition that persons receiving such information will make their own determination as to its suitability for their purposes prior to use. In no event will LA-CO Industries, Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information contained herein.

Material Safety Data Sheet

Section 1 Product and Company Identification

Product Name: **DURA-INK #15 (formerly Sharpie #15)**
Blue, Brown, Green, Orange, Purple, Red, Yellow

Revision #: 2.3

Date Prepared: June 14, 1993

Date Revised: November 12, 1999

Manufacturer:

LA-CO INDUSTRIES, Inc. *Markal Co.*

1201 Pratt Blvd.

Elk Grove Village, IL, USA 60007-5746

Information Telephone: 847-956-7600

Emergency Telephone: Call CHEMTREC

USA 800-424-9300

International (Call Collect) 1-703-527-3887

Chemical Formula: Mixture

CAS No.: Not Applicable. **Derivation:** Not Applicable.

Synonyms: Not Applicable.

General Use: General marking

Supplier/Importer:

Section 2 Composition/Information on Ingredients

<u>Ingredient</u>	<u>CAS No.</u>	<u>%</u>
n-Propanol ^{3,4,5,6} ACGIH: TWA = 200 ppm, STEL = 250 ppm OSHA: TWA = 200 ppm Clean Air Act Section 111 Volatile Organic Compound	71-23-8	40 - 50
n-Butanol ^{1,3,4,5,6} ACGIH: ceiling = 50 ppm OSHA: TWA = 100 ppm EPA: CERCLA RQ = 5000 lbs., EPCRA section 313 de minimis concentration = 1.0% Clean Air Act Section 111 Volatile Organic Compound	71-36-3	0 - 25
Diacetone Alcohol ^{3,4,5,6} ACGIH: ceiling = 50 ppm OSHA: TWA = 50 ppm Clean Air Act Section 111 Volatile Organic Compound	123-42-2	5 - 25
Benzyl Alcohol ^{3,5,6} Clean Air Act Section 111 Volatile Organic Compound	100-51-6	0 - 6
Ethanol ^{3,4,5,6} ACGIH: TWA = 1000 ppm OSHA: TWA = 1000 ppm Clean Air Act Section 111 Volatile Organic Compound	64-17-5	0 - 30
Isopropanol ^{1,3,4,5,6} ACGIH: TWA = 400 ppm, STEL = 500 ppm OSHA: TWA = 400 ppm EPA: EPCRA section 313 de minimis concentration = 0.1% Clean Air Act Section 111 Volatile Organic Compound	67-63-0	0 - 3
Methanol ^{1,3,4,5,6} ACGIH: TWA = 200 ppm, STEL = 250 ppm OSHA: TWA = 200 ppm EPA: CERCLA RQ = 5000 lbs., EPCRA section 313 de minimis concentration = 1.0% Clean Air Act Section 111 Volatile Organic Compound	67-56-1	0 - 1.2

Product Name: **DURA-INK #15 (formerly Sharpie #15)**
Blue, Brown, Green, Orange, Purple, Red, Yellow
Revision #: 2.3 Date Prepared: June 14, 1993 Date Revised: November 12, 1999

(For Section 2 footnotes: See Section 15)

Section 3 Hazards Identification

EMERGENCY OVERVIEW: This product is not considered toxic under U.S. Federal Hazardous Substances Act regulations, title 16, Part 1500. This product is considered safe when used under normal use conditions. The U.S. OSHA Hazard Communication Standard does not apply to this product. The reason for the exemption is contained in 29 CFR, Part 1910.1200, (b) (6) (ix), as amended July 1, 1994 per U.S. Federal Register.

POTENTIAL HEALTH EFFECTS

Primary Exposure Routes: None.

Acute Effects

Eyes: Not applicable.

Skin: Not applicable.

Ingestion: Not applicable.

Inhalation: Not applicable.

Carcinogenicity: Not Applicable.

Target Organ Effects: Not Applicable.

Medical Conditions Aggravated by Long-Term Exposure: Not Determined.

Other Information: Not Applicable.

Chronic Effects

Eyes: Not applicable.

Skin: Not applicable.

Ingestion: Not applicable.

Inhalation: Not applicable.

Section 4 First Aid

Eye Contact: Not applicable.

Skin Contact: Not applicable.

Ingestion: Not applicable.

Inhalation: Not applicable.

Other Information: None.

Section 5 Fire Fighting Measures

Flash Point (method): 72°F / 22°C (closed cup ASTM D93)

Autoignition Temperature: Not Determined.

LEL: 1.4% for n-butanol **UEL:** 14.0% for n-Propanol

Flammability Classification: NFPA Class IC for n-Propanol

Extinguishing Media: Carbon dioxide (CO₂), dry chemical, foam, or water spray.

Hazardous Combustion Products: Oxides of carbon.

Unusual Fire or Explosion Hazards: None Known.

Fire-Fighting Instructions/Equipment: Keep personnel removed and upwind of any fire. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water spray may be used reduce intensity of flames and to dilute spills to non-flammable mixture.

Section 6 Accidental Release Measures

Use recommended personal protective equipment (see Section 8). Wipe up with absorbent material.

Section 7 Handling and Storage

Product Name: **DURA-INK #15 (formerly Sharpie #15)**
Blue, Brown, Green, Orange, Purple, Red, Yellow
Revision #: 2.3 **Date Prepared:** June 14, 1993 **Date Revised:** November 12, 1999

Handling Precautions: Use recommended personal protective equipment (see Section 8). Do not shake marker. Wash thoroughly after handling.

Storage Requirements: Store away from incompatible chemicals (see Sec. 10). Store in a cool, dry area.

Section 8 Exposure Controls/Personal Protection

Eye/Face Protection: None under normal use conditions.

Skin/Hand Protection: None under normal use conditions.

Respiratory Protection: None under normal use conditions.

Other Equipment: None under normal use conditions.

Engineering Controls: None under normal use conditions.

Administrative Controls: Users of this product must be properly trained and qualified in its use.

Other Information: None.

Section 9 Physical and Chemical Properties

Appearance/Physical State: Liquid ink absorbed in felt reservoir.

Odor: Solvent-like

Odor Threshold (ppm): Not Determined.

Specific Gravity (H₂O = 1): 0.85 - 0.88

Solubility - Water: Partially miscible.

- Fat: Soluble

Coefficient of Water/Oil Solubility: About 1

Partition Coefficient (n-octanol/water): About 1

pH: Not applicable.

Melting Point: Not Determined.

Boiling Point: 207°F - 336°F / 97°C - 169°C

Vapor Pressure (mm Hg at 20°C): 0.8 - 13

Vapor Density (Air = 1): Not Determined.

Evaporation Rate (n-BuAc=1): 0.14 - 1.3

V.O.C.: 80% - 95%(w/w), 82% - 96%(v/v), 5.4 - 6.4 lbs./gal.(U.S.), 0.65 - 0.77 kg/l

Flash Point (method): (see Section 5)

Autoignition Temperature: (see Section 5)

Flammability Classification: (see Section 5)

Unusual Fire or Explosion Hazards: (see Section 5)

Oxidizing Properties: Not Applicable.

Other Information: None.

Section 10 Stability and Reactivity

Chemical Stability: Stable

Hazardous Polymerization: Will not occur.

Conditions to Avoid: None Known.

Chemicals to Avoid: Strong acids, alkalis, and oxidizers.

Hazardous Decomposition Products (non-thermal): Not Determined.

Section 11 Toxicological Information

Sensitization to Product: Not Applicable.

Product Name: **DURA-INK #15 (formerly Sharpie #15)**
Blue, Brown, Green, Orange, Purple, Red, Yellow
Revision #: 2.3 **Date Prepared:** June 14, 1993 **Date Revised:** November 12, 1999

Irritancy of Product: Not applicable.
Reproductive Toxicity: Not Applicable.
Teratogenicity: Not Applicable.
Mutagenicity: Not Applicable.

Further hazard information, if applicable, may be found in Section 3. Toxicological information regarding individual ingredients, if applicable, may be found in Section 2.

Section 12 Ecological Information

Mobility: Not Determined.
Degradability: Not Determined.
Accumulation: Not Determined.
Ecotoxicity: Not Determined.
Other Adverse Effects: Not Determined.

Section 13 Disposal Considerations

Dispose of in accordance with all applicable regulations.

Section 14 Transport Information

D.O.T. (U.S.)
Proper Shipping Name: Not Regulated.
Hazard Class or Division: Not Regulated.
Hazard Label: Not Regulated.
I.D. Number: Not Regulated.
TDG (Canada): Not Regulated.
IATA: Not Regulated.
ICAO: Not Regulated.
IMO: Not Regulated.
Australian Code for the Transport of Dangerous Goods
Dangerous Goods Class and Subsidiary Risk: Not Determined.

Section 15 Regulatory Information

Footnotes for Section 2:

- 1 Subject to the reporting requirements of SARA Title III, Section 313.
- 2 Appears on the California Safe Drinking Water and Toxic Enforcement Act (Prop. 65) Substances List.
- 3 Appears on the Massachusetts Substances List.
- 4 Appears on the New Jersey Right-To-Know Hazardous Substances List.
- 5 Appears on the Pennsylvania Hazardous Substances List.
- 6 Appears on the Canadian WHMIS Ingredient Disclosure List.

U.S.A.

Federal Hazardous Substance Labeling Act: This product meets the requirements for pens and markers because it is a porous-tip ink-marking device constructed so that a) the ink is held within an absorbent material so that no free liquid is within the device, b) under reasonably foreseeable conditions of manipulation and use the ink will emerge only through the porous writing nib, and c) the device has a capacity of not more than 10g of ink which has a single dose oral LD50 of not less than 2.5 g/kg of body weight of the test animal.

Product Name: **DURA-INK #15 (formerly Sharpie #15)**
Blue, Brown, Green, Orange, Purple, Red, Yellow
Revision #: 2.3 **Date Prepared:** June 14, 1993 **Date Revised:** November 12, 1999

OSHA Hazard Status: The U.S. OSHA Hazard Communication Standard does not apply to this product. The reason for the exemption is contained in 29 CFR, Part 1910.1200, (b) (6) (ix), as amended July 1, 1994 per U.S. Federal Register.

EPA SARA sec. 311/312 Hazard Categories: Fire Hazard.

Toxic Substances Control Act (TSCA): All ingredients contained in this product are listed on the U.S. EPA TSCA Chemical Substance Inventory.

HMIS Rating: Health 2, Flammability 3, Reactivity 0

NFPA Rating: Health 2, Flammability 3, Reactivity 0

CANADA

WHMIS Status: This product is considered to be hazardous as defined by Canadian WHMIS Controlled Products Regulations.

WHMIS Rating: B2

WHMIS Risk Phrases: Flammable liquid.

WHMIS Precautionary Statements: Keep away from sources of ignition.

Domestic Substances List (DSL): All ingredients contained in this product are listed on the Canadian EPA (CEPA) Domestic Substances List (DSL).

E.U.

European Inventory of Existing Chemical Substances (EINECS): All ingredients contained in this product are listed on the European Inventory of Existing Chemical Substances (EINECS).

Categories of Danger (Labeling Information): Not regulated per regulation 9 (7) of CHIP.

Risk (R) Phrases: None.

Safety (S) Phrases: None.

AUSTRALIA

Worksafe Australia Status: Not Determined.

HAZCHEM Code: Not Determined.

Poisons Schedule Number: Not Determined.

Further regulatory information regarding individual ingredients, if applicable, may be found in Section 2.

This product has been classified in accordance with the hazard criteria of the U.S. OSHA Hazard Communication Standard, the Canadian WHMIS Controlled Products Regulations, the British CHIP2 regulation 6, and the Australian NMRCWHS. This MSDS contains the information required by the above regulations and conforms to ANSI Z400.1-1993.

Section 16 Other Information

MSDS Prepared By: Director of Chemical Safety

The information contained herein is based on data available to us and is accurate and reliable to the best of our knowledge and belief. However, LA-CO Industries, Inc. makes no representations as to its completeness or accuracy. Information is supplied on condition that persons receiving such information will make their own determination as to its suitability for their purposes prior to use. In no event will LA-CO Industries, Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information contained herein.

Material Safety Data Sheet

Section 1 Product and Company Identification

Product Name:

DURA-INK #20, #25, #100

Revision #: 2.0

Date Prepared: June 1, 1990

Date Revised: June 14, 2001

Manufacturer:

LA-CO INDUSTRIES, Inc. *Markal Co.*

1201 Pratt Blvd.

Elk Grove Village, IL, USA 60007-5746

Information Telephone: 847-956-7600

Emergency Telephone: Call CHEMTREC

USA 800-424-9300

International (Call Collect) 1-703-527-3887

Chemical Formula: Mixture

CAS No.: Not Applicable. Derivation: Not Applicable.

Synonyms: Not Applicable.

General Use: General industrial marking.

Supplier/Importer:

Section 2 Composition/Information on Ingredients

Ingredient

Xylol (Xylene) ^{1,3,4,5}

CAS No.

%

1330-20-7 65 - 75

ACGIH: TWA = 100 ppm, STEL = 150 ppm

OSHA: TWA = 100 ppm

EPA: CERCLA RQ = 1000 lbs.; RCRA designation is U239; EPCRA sec. 313 de
minimus concentration = 1.0%

SARA: Health Assessment Rank = 48

U.S. Clean Water Act: Sec. 311 Hazardous Substance

SDWA: MCL = 10 mg/l, MCLG = 10 mg/l

Cresol ^{1,3,4,5,6} (Black Ink Only)

1319-77-3 0 - 2

ACGIH: TWA = 5 ppm or 22 mg/m³; skin notation

OSHA: TWA = 5 ppm or 22 mg/m³; skin designation

EPA: CERCLA RQ = 100 lbs.; RCRA designation is U052; EPCRA sec. 313 de
minimus concentration = 1.0%

SARA: Health Assessment Rank = 252

U.S. Clean Water Act: Sec. 311 Hazardous Substance

U.S. Clean Air Act: Sec. 111 Volatile Organic Compound

(For Section 2 footnotes: See Section 15)

Section 3 Hazards Identification

EMERGENCY OVERVIEW: This product is not considered toxic under U.S. Federal Hazardous Substances Act regulations, title 16, Part 1500. This product is considered safe when used under normal use conditions. The U.S. OSHA Hazard Communication Standard does not apply to this product. The reason for the exemption is contained in 29 CFR, Part 1910.1200, (b) (6) (ix), as amended July 1, 1994 per U.S. Federal Register. The information contained in this MSDS is forwarded to you for your information but is not meant to imply that the product is covered by the Hazard Communication Standard.

POTENTIAL HEALTH EFFECTS

Primary Exposure Routes: Eyes, Skin, Ingestion, Inhalation

Acute Effects

Product Name:

DURA-INK #20, #25, #100

Revision #: 2.0

Date Prepared: June 1, 1990

Date Revised: June 14, 2001

Eyes: Can cause severe irritation, redness, tearing, blurred vision.

Skin: Prolonged or repeated contact can cause moderate irritation, defatting, dermatitis.

Ingestion: Can cause gastrointestinal irritation, nausea, vomiting and diarrhea; aspiration into the lungs can cause chemical pneumonitis, which can be fatal.

Inhalation: Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.

Chronic Effects

Eyes: None Known.

Skin: None Known.

Ingestion: None Known.

Inhalation: None Known.

Carcinogenicity: Not Applicable.

Target Organ Effects: Not Applicable.

Medical Conditions Aggravated by Long-Term Exposure: Not Determined.

Other Information: Not Applicable.

Section 4

First Aid

Eye Contact: Flush with plenty of water while holding eyelids open.

Skin Contact: Wash with soap and water; remove contaminated clothing and launder before reuse.

Ingestion: Do not induce vomiting; keep person warm, quiet, and get medical attention.

Inhalation: Remove person to fresh air, administer oxygen if breathing is difficult, apply artificial respiration and get medical attention if breathing has stopped.

Other Information: Not Applicable.

Section 5

Fire Fighting Measures

Flash Point (method): 100°F/38°C (TOC) for xylene

Autoignition Temperature: Not Determined.

LEL: Not Determined. **UEL:** Not Determined.

Flammability Classification: II for bulk liquid.

Extinguishing Media: Regular foam, carbon dioxide, or dry chemical.

Hazardous Combustion Products: Carbon monoxide (CO), carbon dioxide (CO₂).

Unusual Fire or Explosion Hazards: Vapors are heavier than air and may travel along the ground and be ignited by remote ignition sources.

Fire-Fighting Instructions/Equipment: Keep personnel removed and upwind of any fire. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

Section 6

Accidental Release Measures

Wipe up with absorbent material. Use recommended personal protective equipment (see Section 8).

Section 7

Handling and Storage

Handling Precautions: Use only in well ventilated area. Do not use near heat or flame. Use recommended personal protective equipment (see Section 8). Wash thoroughly after handling.

Storage Requirements: Store away from incompatible chemicals (see Sec. 10). Store in a cool, dry area away from heat or flames.

Section 8

Exposure Controls/Personal Protection

Product Name:

DURA-INK #20, #25, #100

Revision #: 2.0

Date Prepared: June 1, 1990

Date Revised: June 14, 2001

Eye/Face Protection: Suitable for related activities where this product is used.

Skin/Hand Protection: Suitable for related activities where this product is used.

Respiratory Protection: Suitable for related activities where this product is used.

Other Equipment: Suitable for related activities where this product is used.

Engineering Controls: Normal room ventilation. Local exhaust in confined areas. Suitable for related activities where this product is used.

Administrative Controls: Users of this product must be properly trained and qualified in its use.

Other Information: No food or beverage should be consumed in the work area. Wash thoroughly before eating, drinking, or smoking.

Section 9 Physical and Chemical Properties

Appearance/Physical State: Liquid ink absorbed in felt reservoir.

Odor: Xylene

Odor Threshold (ppm): Not Determined.

Specific Gravity (H₂O = 1): <1

Solubility - Water: Insoluble

- Fat: Soluble

Coefficient of Water/Oil Solubility: <<1

Partition Coefficient (n-octanol/water): >>1

pH: Not Applicable.

Melting Point: Not Determined.

Boiling Point: 281⁰F/138.5⁰C for xylene

Vapor Pressure (mm Hg at 20⁰C): 8.72 for xylene

Vapor Density (Air = 1): >1

Evaporation Rate (n-BuAc=1): 0.75 for xylene

V.O.C. (U.S. Clean Air Act Section 111): 65 - 77%(w/w), 65 - 77%(v/v), 4.7 - 5.6 lbs./gal.(U.S.), 0.57 - 0.67 kg/l

Flash Point (method): (see Section 5)

Autoignition Temperature: (see Section 5)

Flammability Classification: (see Section 5)

Unusual Fire or Explosion Hazards: (see Section 5)

Oxidizing Properties: Not Applicable.

Other Information: None.

Note: The physical data represented above are typical values and should not be construed as a specification.

Section 10 Stability and Reactivity

Chemical Stability: Stable

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: None Known.

Chemicals to Avoid: Strong oxidizers.

Hazardous Decomposition Products (non-thermal): Not Determined.

Section 11 Toxicological Information

Sensitization to Product: Not Applicable.

Irritancy of Product: Irritating to eyes and skin.

Reproductive Toxicity: Not Applicable.

Teratogenicity: Not Applicable.

Mutagenicity: Not Applicable.

Product Name:

DURA-INK #20, #25, #100

Revision #: 2.0

Date Prepared: June 1, 1990

Date Revised: June 14, 2001

Further hazard information, if applicable, may be found in Section 3. Toxicological information regarding individual ingredients, if applicable, may be found in Section 2.

Section 12

Ecological Information

Mobility: Not Determined.

Ecotoxicity: Not Determined.

Degradability: Not Determined.

Other Adverse Effects: Not Determined.

Accumulation: Not Determined.

Section 13

Disposal Considerations

Dispose of in accordance with all applicable regulations.

Section 14

Transport Information

D.O.T. (U.S.)

Proper Shipping Name: Not Regulated.

Hazard Class or Division: Not Regulated.

Hazard Label: Not Regulated.

I.D. Number: Not Regulated.

TDG (Canada): Not Regulated.

IATA: Not Regulated.

ICAO: Not Regulated.

IMO: Not Regulated.

Australian Code for the Transport of Dangerous Goods

Dangerous Goods Class and Subsidiary Risk: Not Determined.

Section 15

Regulatory Information

Footnotes for Section 2:

- 1 Subject to the reporting requirements of SARA Title III, Section 313.
- 2 Appears on the California Safe Drinking Water and Toxic Enforcement Act (Prop. 65) Substances List.
- 3 Appears on the Massachusetts Substances List.
- 4 Appears on the New Jersey Right-To-Know Hazardous Substances List.
- 5 Appears on the Pennsylvania Hazardous Substances List.
- 6 Appears on the Canadian WHMIS Ingredient Disclosure List.

U.S.A.

Federal Hazardous Substance Labeling Act: This product meets the requirements for pens and markers because it is a porous-tip ink-marking device constructed so that a) the ink is held within an absorbent material so that no free liquid is within the device, b) under reasonably foreseeable conditions of manipulation and use the ink will emerge only through the porous writing nib, and c) the device has a capacity of not more than 10g of ink which has a single dose oral LD50 of not less than 2.5 g/kg of body weight of the test animal.

OSHA Hazard Status: The U.S. OSHA Hazard Communication Standard does not apply to this product. The reason for the exemption is contained in 29 CFR, Part 1910.1200, (b) (6) (ix), as amended July 1, 1994 per U.S. Federal Register.

EPA SARA sec. 311/312 Hazard Categories: Fire Hazard.

Toxic Substances Control Act (TSCA): All ingredients contained in this product are listed on the U.S. EPA TSCA Chemical Substance Inventory.

HMIS Rating: Health 2, Flammability 3, Reactivity 0

NFPA Rating: Health 2, Flammability 3, Reactivity 0

CANADA

Product Name:

DURA-INK #20, #25, #100

Revision #: 2.0

Date Prepared: June 1, 1990

Date Revised: June 14, 2001

WHMIS Status: This product is considered to be hazardous as defined by Canadian WHMIS Controlled Products Regulations.

WHMIS Rating: B2

WHMIS Risk Phrases: None required on containers of 100 ml or less per CPR, Section 19[1][a]-[d].

WHMIS Precautionary Statements: None required on containers of 100 ml or less per CPR, Section 19[1][a]-[d].

Domestic Substances List (DSL): All ingredients contained in this product are listed on the Canadian EPA (CEPA) Domestic Substances List (DSL).

E.U.

European Inventory of Existing Chemical Substances (EINECS): All ingredients contained in this product are listed on the European Inventory of Existing Chemical Substances (EINECS).

Categories of Danger (Labeling Information): Not regulated per regulation 9 (7) of CHIP.

Risk (R) Phrases: None.

Safety (S) Phrases: None.

AUSTRALIA

Worksafe Australia Status: Not Determined.

HAZCHEM Code: Not Determined.

Poisons Schedule Number: Not Determined.

Further regulatory information regarding individual ingredients, if applicable, may be found in Section 2.

This product has been classified in accordance with the hazard criteria of the U.S. OSHA Hazard Communication Standard, the Canadian WHMIS Controlled Products Regulations, the British CHIP2 regulation 6, and the Australian NMRCWHS. This MSDS contains the information required by the above regulations and conforms to ANSI Z400.1-1993.

Section 16

Other Information

MSDS Prepared By: Director of Chemical Safety

The information contained herein is based on data available to us and is accurate and reliable to the best of our knowledge and belief. However, LA-CO Industries, Inc. makes no representations as to its completeness or accuracy. Information is supplied on condition that persons receiving such information will make their own determination as to its suitability for their purposes prior to use. In no event will LA-CO Industries, Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information contained herein.

MSDS# A055

***** SECTION 1 - IDENTIFICATION *****

IDENTITY: D U R A - I N K # 8 0 -- B L A C K	
MANUFACTURER	EMERGENCY TELEPHONE NO.
LA-CO INDUSTRIES, INC/MARKAL COMPANY	INFORMATION TELEPHONE N
1201 PRATT BOULEVARD	DATE PREPARED:
ELK GROVE VILLAGE IL 60007	SUPERSEDES ISSUE DATE

Chemtrec 1-800-424-9300
847-956-7600
June 21, 2001
March 18, 1999

LABELING

HMIS: 230 NFPA: 230 WHMIS(CANADA): D-2B, B-2
EPA HAZARDS: ACUTE, FLAMMABLE D.O.T. & U.P.S.: CONSUMER COMMODITY ORM-D
BILL OF LADING: MARKERS - FELT TIP INK DRAWING

***** SECTION 2 - HAZARDOUS INGREDIENTS *****

INGREDIENT	C.A.S.#	OSHA PEL	ACGIH TLV	SUPERFUND RQ	%
DIACETONE ALCOHOL	123-42-2	50ppm	50ppm	N.A.	55
PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	N.A.	100ppm	N.A.	30

***** SECTION 3 - PHYSICAL / CHEMICAL CHARACTERISTICS *****

REFERS TO BULK INK

BOILING POINT: 248-337 deg.F SPECIFIC GRAVITY(H₂O=1): < 1
VAPOR PRESSURE(mmHg): 10 @ 25 deg.C
VAPOR DENSITY(AIR=1): > 1 MELTING POINT: N.A.
SOLUBILITY IN WATER: PARTIAL EVAP. RATE(butyl acetate=1): < 1
APPEARANCE: FELT TIP MARKER ODOR: INK HAS ETHEREAL ODOR

***** SECTION 4 - FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT (method used): 89 deg.F, TCC
FLAMMABLE LIMITS - LEL: N.A. UEL: N.A.
EXTINGUISHING MEDIA: FOAM, ALCOHOL FOAM, CO₂, DRY CHEMICAL, WATER SPRAY.
SPECIAL FIRE FIGHTING PROCEDURES: USE SELF-CONTAINED BREATHING APPARATUS.
UNUSUAL FIRE AND EXPLOSION HAZARDS: N.A.

***** SECTION 5 - REACTIVITY DATA *****

STABILITY: STABLE
CONDITIONS TO AVOID: HEAT, OPEN FLAME AND SPARKS.
INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDANTS
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE AND
UNIDENTIFIED ORGANIC COMBUSTION PRODUCTS.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: N.A.

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***** SECTION 6 - HEALTH HAZARD DATA *****

ROUTES OF ENTRY: INHALATION? YES SKIN? YES INGESTION? YES

HEALTH HAZARDS:

EYES: IRRITATION.

SKIN: MAY CAUSE DERMATITIS.

INHALATION: IRRITATION TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

INGESTION: MAY AFFECT CENTRAL NERVOUS SYSTEM.

CARCINOGENICITY: NTP? NO IARC? NO OSHA? NO

SIGNS AND SYMPTOMS OF EXPOSURE: HEADACHE, DIZZINESS, NAUSEA, ANESTHESIA,
COUGHING, IRRITATION OF EYES, NOSE, AND THROAT.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N.A.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: FLUSH WITH PLENTY OF WATER. GET MEDICAL ATTENTION.

SKIN: WASH WITH SOAP AND WATER.

INHALATION: SEEK FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING.

INGESTION: GET MEDICAL ATTENTION.

***** SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE *****

RELEASE AND SPILL PROCEDURES: REMOVE ALL IGNITION SOURCES, VENTILATE AREA,
USE ABSORBENT TO CLEAN UP SPILL.

WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS.

HANDLING AND STORAGE PRECAUTIONS: KEEP AWAY FROM FIRE, EXCESSIVE HEAT AND
STRONG OXIDANTS. STORE AT ROOM TEMPERATURE. USE ADEQUATE VENTILATION.

OTHER PRECAUTIONS: N.A.

***** SECTION 8 - CONTROL MEASURES *****

RESPIRATORY PROTECTION: NORMALLY NOT REQUIRED.

VENTILATION / LOCAL EXHAUST: N.A.

SPECIAL: N.A.

\ MECHANICAL(GENERAL): YES

OTHER: N.A.

PROTECTIVE GLOVES: N.A.

EYE PROTECTION: N.A.

OTHER PROTECTIVE EQUIPMENT: N.A.

WORK/HYGIENIC PRACTICES: DO NOT DELIBERATELY INHALE VAPORS. REPLACE CAP WHEN
NOT IN USE.

N.A. = NOT APPLICABLE

N.D. = NOT DETERMINED

The information contained herein is based on data available to us and is accurate and reliable to the best of our knowledge and belief. However, LA-CO Industries, Inc./Markal Co. makes no representations as to its completeness or accuracy. Information is supplied upon condition that persons receiving such information will make their own determination as to its suitability for their purposes prior to use. In no event will LA-CO Industries, Inc./Markal Co. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information contained herein.

MSDS# A055 PRODUCT: D U R A - I N K # 8 0 -- B L A C K

MATERIAL SAFETY DATA SHEET

MSDS# A057

SECTION 1 - IDENTIFICATION

IDENTITY: D U R A - I N K # 8 0 -- GREEN, BLUE, YELLOW, ORANGE

LA-CO® INDUSTRIES INC/MARKAL® COMPANY
1201 PRATT BOULEVARD
ELK GROVE VILLAGE IL 60007

EMERGENCY TELEPHONE NO. Chemtrec 1-800-424-9300
INFORMATION TELEPHONE N 847-956-7600
DATE PREPARED: June 22, 2001
SUPERSEDES ISSUE DATE: September 16, 1998

LABELING

EPA HAZARDS: ACUTE, FLAMMABLE D.O.T. & U.P.S.: CONSUMER COMMODITY ORM-D
BILL OF LADING: MARKERS - FELT TIP INK DRAWING
HMIS: 230 NFPA: 230 WHMIS(CANADA): D-28, 8-2

SECTION 2 - HAZARDOUS INGREDIENTS

INGREDIENT	C.A.S.#	OSHA PEL	ACGIH TLV	RQ	SUPERFUND
AROMATIC PETROLEUM SOLVENT	64742-95-6	100ppm/8HRS.	N.A.	N.A.	65-75
XYLOL	1330-20-7	100ppm	100ppm	1000 lbs.	10-15

THE INDICATED TOXIC CHEMICALS ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372.

SECTION 3 - PHYSICAL / CHEMICAL CHARACTERISTICS

REFERS TO BULK INK

BOILING POINT: 282-346 deg.F	SPECIFIC GRAVITY(H ₂ O=1): < 1
VAPOR PRESSURE(mmHg): 20 @ 100 deg.C	
VAPOR DENSITY(AIR=1): 4	MELTING POINT: N.A.
SOLUBILITY IN WATER: INSOLUBLE	EVAP. RATE(butyl acetate=1): < 1
APPEARANCE: FELT TIP MARKER	ODOR: INK HAS AROMATIC ODOR

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (method used): 80 deg.F, ICC
FLAMMABLE LIMITS - LEL: 1% UEL: 1%
EXTINGUISHING MEDIA: FOAM, ALCOHOL FOAM, CO₂, DRY CHEMICAL, WATER SPRAY.
SPECIAL FIRE FIGHTING PROCEDURES: USE SELF-CONTAINED BREATHING APPARATUS.
UNUSUAL FIRE AND EXPLOSION HAZARDS: N.A.

SECTION 5 - REACTIVITY DATA

STABILITY: STABLE
CONDITIONS TO AVOID: HEAT, OPEN FLAME AND SPARKS.
INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDANTS
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE AND UNIDENTIFIED ORGANIC COMBUSTION PRODUCTS.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: N.A.

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***** SECTION 6 - HEALTH HAZARD DATA *****

ROUTES OF ENTRY: INHALATION? YES SKIN? YES INGESTION? YES

HEALTH HAZARDS:

EYES: IRRITATION.

SKIN: MAY CAUSE DERMATITIS.

INHALATION: IRRITATION TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

INGESTION: MAY AFFECT CENTRAL NERVOUS SYSTEM.

CARCINOGENICITY: NTP? NO IARC? NO OSHA? NO

SIGNS AND SYMPTOMS OF EXPOSURE: HEADACHE, DIZZINESS, NAUSEA, ANESTHESIA,
COUGHING, IRRITATION OF EYES, NOSE, AND THROAT.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N.A.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: FLUSH WITH PLENTY OF WATER. GET MEDICAL ATTENTION.

SKIN: WASH WITH SOAP AND WATER.

INHALATION: SEEK FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING.

INGESTION: GET MEDICAL ATTENTION.

***** SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE *****

RELEASE AND SPILL PROCEDURES: REMOVE ALL IGNITION SOURCES, VENTILATE AREA,
USE ABSORBENT TO CLEAN UP SPILL.

WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS.

HANDLING AND STORAGE PRECAUTIONS: KEEP AWAY FROM FIRE, EXCESSIVE HEAT AND
STRONG OXIDANTS. STORE AT ROOM TEMPERATURE. USE ADEQUATE VENTILATION.

OTHER PRECAUTIONS: N.A.

***** SECTION 8 - CONTROL MEASURES *****

RESPIRATORY PROTECTION: NORMALLY NOT REQUIRED.

VENTILATION / LOCAL EXHAUST: N.A.

SPECIAL: N.A.

\ MECHANICAL(GENERAL): YES

OTHER: N.A.

PROTECTIVE GLOVES: N.A.

EYE PROTECTION: N.A.

OTHER PROTECTIVE EQUIPMENT: N.A.

WORK/HYGIENIC PRACTICES: DO NOT DELIBERATELY INHALE VAPORS. REPLACE CAP WHEN
NOT IN USE.

N.A. = NOT APPLICABLE

N.D. = NOT DETERMINED

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MSDS# A057 PRODUCT: DURA INK #80 - GREEN, BLUE, YELLOW, ORANGE

MSDS# A056

***** SECTION 1 - IDENTIFICATION *****

IDENTITY: D U R A - I N K # 8 0 -- R E D		
MANUFACTURER	EMERGENCY TELEPHONE NO.	Chemtrec 1-800-424-9300
LA-CO INDUSTRIES, INC/MARKAL COMPANY	INFORMATION TELEPHONE NO.	847-956-7600
1201 PRATT BOULEVARD	DATE PREPARED:	g June 22, 2001
ELK GROVE VILLAGE IL 60007	SUPERSEDES ISSUE DATE	u September 16, 1998

LABELING

HMIS: 230	NFPA: 230	WHMIS(CANADA): D-2B, B-2
EPA HAZARDS: ACUTE, FLAMMABLE	D.O.T. & U.P.S.: CONSUMER COMMODITY ORM-D	
BILL OF LADING: MARKERS - FELT TIP INK DRAWING		

***** SECTION 2 - HAZARDOUS INGREDIENTS *****

INGREDIENT	C.A.S.#	OSHA PEL	ACGIH TLV	RQ	%
AROMATIC PETROLEUM SOLVENT	64742-95-6	100ppm	N.A.	N.A.	40
MINERAL SPIRITS	64742-88-7	500ppm	N.A.	N.A.	25
XYLOL *	1330-20-7	100ppm	100ppm	1000 lbs.	5

* THE INDICATED TOXIC CHEMICALS ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372.

***** SECTION 3 - PHYSICAL / CHEMICAL CHARACTERISTICS *****

REFERS TO BULK INK

BOILING POINT: 282-358 deg.F	SPECIFIC GRAVITY(H ₂ O=1): < 1
VAPOR PRESSURE(mmHg): 20 @ 100 deg.C	
VAPOR DENSITY(AIR=1): 4	MELTING POINT: N.A.
SOLUBILITY IN WATER: INSOLUBLE	EVAP. RATE(butyl acetate=1): < 1
APPEARANCE: FELT TIP MARKER	ODOR: INK HAS AROMATIC ODOR

***** SECTION 4 - FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT (method used): 80-85 deg.F, TCC
 FLAMMABLE LIMITS - LEL: 1% UEL: 1%
 EXTINGUISHING MEDIA: FOAM, ALCOHOL FOAM, CO₂, DRY CHEMICAL, WATER SPRAY.
 SPECIAL FIRE FIGHTING PROCEDURES: USE SELF-CONTAINED BREATHING APPARATUS.
 UNUSUAL FIRE AND EXPLOSION HAZARDS: N.A.

***** SECTION 5 - REACTIVITY DATA *****

STABILITY: STABLE
 CONDITIONS TO AVOID: HEAT, OPEN FLAME AND SPARKS.
 INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDANTS
 HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE AND UNIDENTIFIED ORGANIC COMBUSTION PRODUCTS.
 HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
 CONDITIONS TO AVOID: N.A.

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ROUTES OF ENTRY: INHALATION? YES SKIN? YES INGESTION? YES

HEALTH HAZARDS:

EYES: IRRITATION.

SKIN: MAY CAUSE DERMATITIS.

INHALATION: IRRITATION TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

INGESTION: MAY AFFECT CENTRAL NERVOUS SYSTEM.

CARCINOGENICITY: NTP? NO IARC? NO OSHA? NO

SIGNS AND SYMPTOMS OF EXPOSURE: HEADACHE, DIZZINESS, NAUSEA, ANESTHESIA,
COUGHING, IRRITATION OF EYES, NOSE, AND THROAT.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N.A.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: FLUSH WITH PLENTY OF WATER. GET MEDICAL ATTENTION.

SKIN: WASH WITH SOAP AND WATER.

INHALATION: SEEK FRESH AIR. GIVE ARTIFICIAL RESPIRATION OF NOT BREATHING.

INGESTION: GET MEDICAL ATTENTION.

***** SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE *****

RELEASE AND SPILL PROCEDURES: REMOVE ALL IGNITION SOURCES, VENTILATE AREA,
USE ABSORBENT TO CLEAN UP SPILL.

WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS.

HANDLING AND STORAGE PRECAUTIONS: KEEP AWAY FROM FIRE, EXCESSIVE HEAT AND
STRONG OXIDANTS. STORE AT ROOM TEMPERATURE. USE ADEQUATE VENTILATION.

OTHER PRECAUTIONS: N.A.

***** SECTION 8 - CONTROL MEASURES *****

RESPIRATORY PROTECTION: NORMALLY NOT REQUIRED.

VENTILATION / LOCAL EXHAUST: YES

SPECIAL: N.A.

\ MECHANICAL(GENERAL): N.A.

OTHER: N.A.

PROTECTIVE GLOVES: N.A.

EYE PROTECTION: N.A.

OTHER PROTECTIVE EQUIPMENT: N.A.

WORK/HYGIENIC PRACTICES: DO NOT DELIBERATELY INHALE VAPORS. REPLACE CAP WHEN
NOT IN USE.

N.A. = NOT APPLICABLE

N.D. = NOT DETERMINED

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MSDS# A056 PRODUCT: D U R A - I N K # 8 0 -- R E D