

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.

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.

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): 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: 207⁰F / 97⁰C for n-propanol
Vapor Pressure (mm Hg at 20⁰C): 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.