C 33206

LA-CO Markal

6851

SAFETY DATA SHEET

Section 1: Product and Company Identification

Product Name: Dura Ink®

Product Code: DURA-INK® 200 – 96916 (red), 96917 (*black), 96915 (blue), 96914 (green), 96540 (red carded), 96541 (*black carded).
DURA-INK® 10 – 96076 (*black), 96077 (*black carded).
DURA-INK® 15 – 96022 (red), 96023 (*black), 96025 (blue), 96026 (green), 96033 (*black carded), 96068 (red carded).
DURA-INK® 25 - 96222 (red), 96223 (*black), 96233 (*black carded) 96234 (red carded).
DURA-INK® 55 – 96528 (red), 96529 (*black), 96530 (blue), 96531 (green), 96532 (red carded), 96533 (*black carded).
[*Black codes I-08 and later.]
DURA-INK® 60 Red (96535)
DURA-INK® 60 Black (96536)
DURA-INK® 60 Blue (96537)
DURA-INK® 60 Green (96538)

Product Use: Marker for cardboard, wood, metal, paper, ceramics, glass, leather and rubber.

Supplier: LA-CO Industries, Inc.
1201 Pratt Boulevard
Elk Grove Village, IL.
60007-5746
E-mail Contact: customer_service@laco.com

Phone Number: (847) 956-7600
Fax: (847) 956-9885
24-hour Emergency: **CHEMTREC: (800) 424-9300**

Section 2: Hazards Identification

2.1 Classification of the substance or mixture according to GHS Classifications (UNECE 3rd Revised Edition):
Not classified as a hazardous chemical.

2.2 Label elements:
No hazard classifications.

2.3 Other hazards:
The paint inside the marker (<10 mL) is a flammable liquid. Exposures to liquid and/or vapors from misuse of the product may cause eye irritation and/or drowsiness and dizziness. Contains a substance that may cause an allergic skin reaction. Contains a substance (<2.5%) that is suspected of causing genetic defects. Exposure to hazardous substances is not expected when handling this product for its intended use.

2.4 Other hazard classifications:
Marker meets the definition of an "article".

USA: This article is not considered a hazardous chemical by the OSHA Hazard Communication Standard 29 CFR 1910.1200 (2012).

Canada: This article is not a controlled product under WHMIS.

European Union (EU): This article is not classified as hazardous according to CLP Regulation (EC) No 1272/2008.

Section 3: Composition / Information on Ingredients

Chemical Name	CAS No.	Wt.%	GHS Classifications according to UNECE 3rd Revised Edition
n-Propanol	71-23-8	50 - 70	Flam. Liq. 2; H225 Eye Dam. 1; H318 STOT SE 3; H336
Ethanol	64-17-5	30 - 60	Flam. Liq. 2; H225
1-methoxypropan-2-ol	107-98-2	10 - 25	Flam. Liq. 3; H226 STOT SE 3; H336

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Section 3: Composition / Information on Ingredients, continued

n-butanol	71-36-3	7 - 13	Flam. Liq. 3; H226 Acute Tox. 4; H302 STOT SE 3; H335 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H336
Rosin acids	73138-82-6	7 - 13	Skin Sens. 1; H317
Isopropanol	67-63-0	1 - 5	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
4-(phenylazo)benzene-1,3-diamine	495-54-5	1 – 2.5	Muta. 2; H341 Acute Tox. 4; H302 Skin Irrit. 2; H315 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

Section 4: First Aid Measures

4.1 Description of first aid measures:

Inhalation: If symptoms are experienced, remove source of contamination or have victim move to fresh air. Obtain medical advice.

Eye Contact: No effects expected. If liquid paint contacts the eyes, rinse cautiously for several minutes while holding the eyelids open. Obtain medical attention.

Skin Contact: No health effects expected. If irritation does occur, flush with lukewarm, gently flowing water for 5 minutes. If irritation persists, obtain medical advice.

Ingestion: No health effects expected. If swallowed, do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Obtain medical advice or call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed:

Exposure to hazardous substances is not expected when handling this product for its intended use.
Liquid paint may cause serious eye irritation if in contact with the eyes.
Liquid paint may cause an allergic skin reaction in sensitive individuals.
Exposure to vapors from the paint may result from misuse of the marker. Breathing vapors may cause drowsiness and dizziness.
The component substance, 4-(phenylazo) benzene-1,3-diamine, present at between 1 and 2.5%, is classified in mutagenic category 2, suspected of causing genetic defects. Exposure to this substance is not expected with normal use of the marker.

Section 5: Fire Fighting Measures

5.1 Extinguishing media:

For small fires use dry chemicals, carbon dioxide, appropriate foam, or inert gas (nitrogen).
For large fires use appropriate foam, water fog, or water spray. Water can be used to cool fire-exposed containers.

5.2 Special hazards arising from the substance:

Markers contain a small volume of paint which is a flammable liquid, category 2. Flashpoint 13°C (55°F).

5.3 Advice for firefighters:

If involved in a fire, combustion may produce toxic and irritating fumes and gases including carbon dioxide, carbon monoxide and/or unburned hydrocarbons.
As for any fire, evacuate the area and fight the fire from a safe distance. Firefighters must wear full protective clothing and positive pressure self-contained breathing apparatus.

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Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

If large volumes of paint are released shut off or extinguish all sources of ignition. Do not breathe vapors. Ventilate the area.

6.2 Environmental precautions:

Prevent the spilled liquid from entering sewers or waterways.

6.3 Methods and material for containment and cleaning up:

Stop the spill if it is safe to do so.
Absorb any spilled liquid using dry earth, sand or non-combustible absorbent material and transfer to appropriate covered and labeled waste containers.

6.4 Additional Information:

See Section 8 for information on selection of personal protective equipment.
See Section 13 for information on disposal of spilled product and contaminated absorbents.

Section 7: Handling and Storage

7.1 Precautions for safe handling:

Keep out of reach of children.
Do not use near hot surfaces or flames.
Avoid contact with the liquid paint on skin.

7.2 Conditions for safe storage, including any incompatibilities:

Store below 50°C. Store away from ignition sources, extreme heat and out of direct sunlight. Keep markers closed when not in use.

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters:

Occupational Exposure Limits:
Measurable airborne concentrations of the component substances, listed in Section 3, are not expected when the markers are used for their intended purpose. Consult local authorities for acceptable exposure limits.

8.2 Exposure controls:

Engineering Controls: General ventilation is normally adequate.

Personal Protection: Workers must comply with the Personal Protective Equipment requirements of the workplace in which this product is handled.

Eye/Face Protection: Not required for normal use. In case of accidental release of large quantities of paint, wear goggles.

Skin Protection: Not required for normal use. In case of accidental release of large quantities of paint, wear gloves.

Respiratory Protection: Not required for normal use.

Other Protection: Avoid breathing vapors. Keep out of reach of children.

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Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:	
Appearance:	Solid, containing liquid, colored paint.
Odor:	Mild odor of alcohol.
Odor threshold:	Not available
pH:	Not available
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	78°C (172°F) (paint)
Flash point:	13°C (55°F)
Flammability	Paint contained in marker is a flammable liquid
Auto-ignition temperature:	287°C (548°F) (paint)
Upper/lower flammability or explosive limits:	Lower: 1.7 vol. %. Upper: 13.5vol. % (paint)
Explosive properties:	Not available
Oxidizing properties:	Not available
Sensitivity to mechanical impact:	Not available
Sensitivity to static discharge:	Not available
Vapor pressure:	19 hPa (paint)
Evaporation rate:	Not available
Vapor density:	Not available
Relative density:	Not available
Solubility (is):	Paint is partly miscible in water.
Partition coefficient (n-octane/water):	Not available
Decomposition temperature:	Not available
Viscosity:	3 mPas
VOC Content:	80% (paint)

Section 10: Stability and Reactivity

10.1 Reactivity:
Not classified for reactivity hazards.

10.2 Chemical Stability:
Stable at normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of Hazardous Reactions:
None known

10.4 Conditions to Avoid:
Do not use in conditions of heat or near open flames and sparks. Avoid heating above 60°C.

10.5 Incompatible Materials:
Paint is incompatible with strong oxidizing agents, such as chlorine and oxygen.

10.6 Hazardous Decomposition Products:
None known when used for its intended purpose. Combustion may produce irritating and/or toxic gases.

Section 11: Toxicological Information

11.1 Information on toxicological effects:

Acute Health Effects:

Inhalation: This product does not easily form a vapor; inhalation exposure is unlikely to occur, unless the marker is misused. Exposures to high vapor concentrations may cause drowsiness and dizziness.

Ingestion: Not an expected route of exposure with normal use of the product.

Skin: Repeated contact with the skin may cause irritation.

Eye: Not an expected route of exposure with normal use of the product. Direct contact with the liquid paint may cause serious eye irritation.

Acute Toxicity Data: Acute toxicity data are not available for the mixture.

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Section 11: Toxicological Information, continued

Chronic Health Effects:
Data are not available.

Sensitization:
Data are not available for the paint mixture. Contains Rosin acids, a substance which may cause an allergic skin reaction.

Neurological Effects:
Not applicable with normal use of the marker.

Genetic Effects:
Data are not available for the paint mixture. Contains 4-(phenylazo)benzene-1,3-diamine, a substance which is suspected of causing genetic defects.

Reproductive Effects:
Not applicable

Developmental Effects:
Not applicable with normal use of the marker.

Target Organ Effects:
Not applicable

Carcinogenicity:
This product does not contain any component that is considered a human carcinogen by IARC (International Agency for Research on Cancer), ACGIH (American Conference of Governmental Industrial Hygienists, OSHA or NTP (National Toxicology Program).

Medical Conditions Aggravated by Exposure:
Repeated skin contact may aggravate an existing dermatitis.

Interactions With Other Chemicals:
Data are not available.

Section 12: Ecological Information

12.1 Toxicity:

Germany Water Hazard Classes: 1-methoxypropan-2-ol ID Number 1597, hazard class 1 - low hazard to waters.
Isopropanol ID Number 135, hazard class 1 - low hazard to waters.

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

Section 13: Disposal Considerations

13.1 Waste treatment methods:
Do NOT discard into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage. Dispose of in accordance with local, state/provincial and federal laws and regulations.

The conditions of use, storage and disposal of this product are beyond our control and may be beyond our knowledge. For this and other reasons, LA-CO Industries, Inc. does not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

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Section 14: Transport Information:

Transport Regulations:

U.S. Hazardous Materials Regulation (DOT 49CFR): Not regulated

Canadian Transportation of Dangerous Goods (TDG): Not regulated

IMO Classification: Not regulated

ICAO/IATA Classification: Not regulated

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

USA

OSHA: Article, Non-Hazardous according to OSHA Hazard Communication Standard 29 CFR 1910.120 (2012).

SARA Title III

Sec. 302/304:	None
Sec: 311/312:	Flammable; Delayed health effects
Sec. 313:	Isopropanol
CERCLA RQ:	None

California Prop 65: Not applicable

State Right-to-Know: n-Propanol, Ethanol, Isopropanol and 1-methoxypropan-2-ol can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, and Massachusetts.

Canada

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the SDS contains all the information required by the *Controlled Products Regulations*.

WHMIS Classification: Manufactured article, Not controlled

Europe

This article is not classified as hazardous according to CLP Regulation (EC) No 1272/2008.

Section 16: Other Information

Text of H-phrases in Section 3:

H225: Highly flammable liquid and vapour.
H226: Flammable liquid and vapour.
H302: Harmful if swallowed.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H341: Suspected of causing genetic defects.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

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Preparation Information:

Revision date: February 15, 2013

References and sources for data:

CCOHS – ChemInfo
European Commission Joint Research Centre IHCP, European Chemical Substances Information System (ESIS).

Legend to abbreviations:

ACGIH – American Conference of Governmental Industrial Hygienists
GHS- Globally Harmonised System for Classification and Labeling
IARC – International Agency for Research on Cancer
LD50- Median lethal dose; the dose causing 50 % lethality
LEV- Local exhaust ventilation
OSHA – United States, Occupational Safety and Health Administration
STEL – Short term exposure limit
TWA – Time weighted average
TLV - Threshold Limit Value
NTP – National Toxicology Program
WHMIS – Canada, Workplace Hazardous Materials Information System

Supplier Note: 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.

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Date : 03/15/2013
Version : 1

Material Safety Data Sheet

DURA-INK®15 Silver

1. Product and company identification

Product name : DURA-INK®15 Silver

Material uses : FOR INDUSTRIAL USE ONLY
Marker for cardboard, wood, metal, paper, ceramics, glass, leather and rubber.

Supplier/Manufacturer : LA-CO Industries, Inc.
1201 Pratt Boulevard
Elk Grove Village,
IL. 60007-5746

MSDS authored by : KMK Regulatory Services Inc.

In case of emergency : CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887

2. Hazards identification

This MSDS reflects the health, physical and environmental hazards of the liquid ink contained within the pen/ marker. Because of the nature of the finished product i.e. the fact that the ink is held internally within the pen/ marker inside a closed (sealed) container, and given that the liquid is present in a small quantity and is released in very small amounts during normal use, the user of the product and/or the reader of this MSDS should consider the potential exposure to the ink to be minimal and controlled during the normal use of the product. Refer to relevant sections of the MSDS (7 and 13) for additional information on handling and disposal considerations. To avoid any potential hazard and to minimize the risk of exposure, it is important that the user of the product does NOT open, heat, burn or expose it to a source of intense heat, as this could release the ink.

Emergency overview

Physical state : Solid in cylindrical form.

Color : Silver.

Odor : Solvent.

Hazard statements : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin : No known significant effects or critical hazards.

Eyes : No known significant effects or critical hazards.

Potential chronic health effects

Chronic effects : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

2. Hazards identification

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Target organs : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin : No known significant effects or critical hazards.

Eyes : No known significant effects or critical hazards.

Medical conditions aggravated by over-exposure : None known.

See toxicological information (Section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Methylcyclohexane Aluminum	108-87-2 7429-90-5	60 - 100 10 - 30

Canada

Name	CAS number	%
Methylcyclohexane Aluminum	108-87-2 7429-90-5	60 - 100 10 - 30

Mexico

					Classification			
Name	CAS number	UN number	%	IDLH	H	F	R	Special
Methylcyclohexane Aluminum	108-87-2 7429-90-5	UN2296 UN1309	60 - 100 10 - 30	1200 ppm -	1 1	3 2	0 0	- -

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact : Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention if symptoms occur.

Inhalation : Move exposed person to fresh air. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Protection of first-aiders : No special protection is required.

Notes to physician : No specific treatment. Treat symptomatically.

5. Fire-fighting measures

Flammability of the product : No specific fire or explosion hazard.

Extinguishing media

Suitable : Use dry chemical, CO_2 or foam.

Not suitable : None known.

Special exposure hazards : No specific fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Spill : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling : Put on appropriate personal protective equipment (see Section 8). Workers should wash hands and face before eating, drinking and smoking. Avoid breathing vapor or mist. Use only with adequate ventilation. Store and use away from heat, sparks, open flame or any other ignition source.

Storage : Store in accordance with local regulations.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
Methylcyclohexane	**ACGIH TLV (United States, 2/2010).** TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. **NIOSH REL (United States, 6/2009).** TWA: 1600 mg/m³ 10 hours. TWA: 400 ppm 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 400 ppm 8 hours. TWA: 1600 mg/m³ 8 hours.
Aluminum	**NIOSH REL (United States, 6/2009).** TWA: 5 mg/m³ 10 hours. Form: Respirable fraction TWA: 10 mg/m³ 10 hours. Form: Total **OSHA PEL (United States, 6/2010).** TWA: 5 mg/m³, (as Al) 8 hours. Form: Respirable fraction TWA: 15 mg/m³, (as Al) 8 hours. Form: Total dust **ACGIH TLV (United States, 3/2012).**

8. Exposure controls/personal protection

	TWA: 1 mg/m³ 8 hours. Form: Respirable fraction

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m³	Other	ppm	mg/m³	Other	ppm	mg/m³	Other	Notations
Methylcyclohexane	US ACGIH 2/2010	400	1610	-	-	-	-	-	-	-	
	AB 4/2009	400	1610	-	-	-	-	-	-	-	
	BC 9/2010	400	-	-	-	-	-	-	-	-	
	ON 7/2010	400	1610	-	-	-	-	-	-	-	
	QC 6/2008	400	1610	-	-	-	-	-	-	-	
Aluminum	US ACGIH 3/2012	-	1	-	-	-	-	-	-	-	[a]
	AB 4/2009	-	10	-	-	-	-	-	-	-	[3] [b]
	BC 4/2012	-	1	-	-	-	-	-	-	-	[c]
	ON 7/2010	-	1	-	-	-	-	-	-	-	[a]
Aluminum, as Al	QC 9/2011	-	10	-	-	-	-	-	-	-	

[3]Skin sensitization
Form: [a]Respirable fraction [b]Metal Dust [c]Respirable

Mexico

Occupational exposure limits

Ingredient	Exposure limits
Methylcyclohexane	**NOM-010-STPS (Mexico, 9/2000).** LMPE-CT: 2000 mg/m³ 15 minutes. LMPE-CT: 500 ppm 15 minutes. LMPE-PPT: 1600 mg/m³ 8 hours. LMPE-PPT: 400 ppm 8 hours.
Aluminum	**NOM-010-STPS (Mexico, 9/2000).** LMPE-PPT: 5 mg/m³ 8 hours. LMPE-PPT: 5 mg/m³ 8 hours. Form: powder

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Engineering measures : Use only with adequate ventilation.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory : Not required for normal use of the pen/marker. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands : Not required for normal use of the pen/marker. Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes : Not required for normal use of the pen/marker. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

8. Exposure controls/personal protection

Skin	:	Not required for normal use of the pen/marker. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9. Physical and chemical properties

Physical state	:	Solid in cylindrical form.
Flash point	:	Closed cup: -3°C (26.6°F)
Burning time	:	Not applicable.
Burning rate	:	Not applicable.
Auto-ignition temperature	:	250°C (482°F)
Flammable limits	:	Lower: 1.2% Upper: 6.7%
Color	:	Silver.
Odor	:	Solvent.
Taste	:	Not available.
Molecular weight	:	Not applicable.
Molecular formula	:	Not applicable.
pH	:	Not applicable.
Boiling/condensation point	:	>100°C (>212°F)
Melting/freezing point	:	-126°C (-194.8°F)
Critical temperature	:	Not available.
Relative density	:	Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Volatility	:	70% (w/w)
Odor threshold	:	Not available.
Evaporation rate	:	Not available.
SADT	:	Not available.
Viscosity	:	Not available.
Ionicity (in water)	:	Not available.
Dispersibility properties	:	Not available.
Solubility	:	Insoluble in the following materials: cold water and hot water.
Partition coefficient (LogKow)	:	No data available.
Physical/chemical properties comments	:	Not available.

10. Stability and reactivity

Chemical stability : The product is stable.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

There is no data available.

Chronic toxicity

There is no data available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methylcyclohexane	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rabbit	- -	24 hours 100 µL 24 hours 500 µL	- -

Sensitizer

Skin : There is no data available.

Respiratory : There is no data available.

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Aluminum	A4	-	-	-	-	-

Mutagenicity

There is no data available.

Teratogenicity

There is no data available.

Reproductive toxicity

There is no data available.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Methylcyclohexane	Acute LC50 5800 µg/l Marine water	Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Aluminum	Acute LC50 120 µg/l Fresh water Chronic NOEC 9 mg/L Fresh water	Fish - Oncorhynchus mykiss - Embryo Aquatic plants - Ceratophyllum demersum	96 hours 3 days

Persistence/degradability

12. Ecological information

There is no data available.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-
Mexico Classification	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-

PG* : Packing group Exemption to the above classification may apply. **AERG** : Not applicable.

15. Regulatory information

United States

HCS Classification : Not regulated.

U.S. Federal regulations : **TSCA 8(a) PAIR**: Methylcyclohexane

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

15. Regulatory information

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Methylcyclohexane	60 - 100	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Aluminum	7429-90-5	10 - 30
Supplier notification	Aluminum	7429-90-5	10 - 30

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: Methylcyclohexane; Aluminum

New York : None of the components are listed.

New Jersey : The following components are listed: Methylcyclohexane; Aluminum

Pennsylvania : The following components are listed: Methylcyclohexane; Aluminum

California Prop. 65

No products were found.

Canada

WHMIS (Canada) : Not controlled under WHMIS (Canada).

Canadian lists

Canadian NPRI : The following components are listed: Aluminum

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico

Classification :

16. Other information

Label requirements : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

Hazardous Material Information System (U.S.A.) : **Health :** 1 **Flammability :** 1 **Physical hazards :** 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) : **Health :** 1 **Flammability :** 1 **Instability :** 0

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue mm/dd/yyyy : 03/15/2013

Version : 1

Revised Section(s) : Not applicable.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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Classification as « ARTICLES » of Markal products according to REACH Regulation

LA-CO Industries Europe S.A.S follows the recommendations and positions of the EWIMA (*European Writing Instrument Manufacturer's Association*) regarding the classification of writing utensils as "**ARTICLES**" according to ReacH definition in the European regulation (EC) n° 1907/2006, Art. 3 (3). So they do not fall under the European Dangerous Preparation Directive.

As a consequence, there is no need to issue EC Safety Data Sheet for the following Markal products:

Product Range	Product Name
Liquid Paint Markers	Valve Action® Paint Marker, Valve Action® Paint Marker Certified, PRO-LINE® HP, PRO-LINE® WP, PRO-LINE® Fine, PRO-LINE® Micro, PRO-LINE® XT, PRO-MAX®, PRO-WASH® W, PRO-WASH® D, SL.100, SL.130, SL.150, SL.170, SL.250, SL.400, SL.250 PMUC
Paintstik® for Cold Surfaces	B®, B® 3/8", B® ½ Hex, B-E®, B-L®, BL-W®, C®, E®, F®, FAST DRY®, Lacquer-Stik®, M®, M-10®, N®, O-10®, P®, WS-3/8®, Quik Stik®, Quik Stik® Mini, ZEPHYR®
Paintstik® for Hot Surfaces	H®, HT®, K®, HT-34®, HT-40®, HT-75®, J®, PK®, X-5®
Markers for welding	Thermomelt®, Thermomelt® Certified, Silver-Streak®, Red-Riter®, Soapstone, Cool Gel®, FM.213, FM.220, FM.230, FM.400
Permanent Ink Markers	SL.020, SL.055, SL.060, SL.090, DURA-INK® 5, DURA-INK® 15, DURA-INK® 20, DURA-INK® 25, DURA-INK® 200, DURA-INK® 55, DURA-INK® 60, DURA-INK® Dry Erase, All-Weather® Plastic Ear Tag
Crayons	FM.120, FM.155, FM.170, FM.300, Pro-EX®, TYRE MARQUE®, TRADES-MARKER®, TRADES-MARKER® WS, China Markers, ULTRASCAN®, OPTIMARK®, SCAN-IT®, SCAN-IT® PLUS
Pencils	ZS.024, ZS.124, ZS.130, ZS.230, ZS.324, ZS.424

For their internal needs, we can be lead to provide our customers the MSDS for the inks and paints which are used in our markers. Please keep in mind that the information on these data sheets relates to the ink or paint in bulk. Because our products contain a comparatively small quantity of these inks and paints, most of this information will not be relevant to you.

Assuming our products are used and stored in a normal way, they are not dangerous.

Best regards,

Olivier Magnin
PDG