

MKL 96023

DURA-INK® 5, 15, 25, 55, 60, 200 Black Markers**LA-CO Industries, Inc.****Safety Data Sheet**

according to Regulation (EC) No. 453/2010

Date of issue: 02/04/2015

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product Identifier**

Trade name : DURA-INK® 5, 15, 25, 55, 60, 200 Black Markers
 Synonyms : DURA-INK® 5 Black / DURA-INK® 15 Black / DURA-INK® 25 Black / DURA-INK® 55 Black /
 DURA-INK® 60 Black / DURA-INK® 200 Black

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

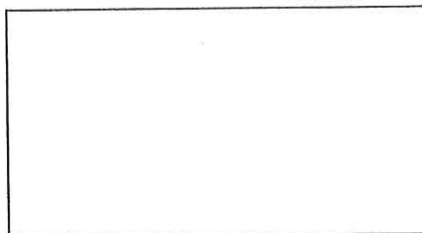
Main use category : Professional use, Industrial use
 Use of the substance/mixture : Marking.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LA-CO Industries Europe S.A.S.
 Parc Industriel de la Plaine de
 l'Ain - Allée des Combes,
 01150, BLYES, France.
 Phone: +33 (0)4 74 46 23 23
 Fax: +33 (0)4 74 46 23 29
 E-mail: info@eu.laco.com
 Web: http://www.markal.com

**1.4. Emergency telephone number**

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

EU Member State	Officieel adviesorgaan	Adres	Noodnummer
AUSTRIA	Vergiftungsinformationszentrale (Poisons Information Centre)	Allgemeines Krankenhaus Waehringer Geurtel 18-20 1090 Wien	+43 1 406 43 43
BELARUS	The Belarus Republican Poisons Centre	Kizhevalova str. 58 Minsk 220115	+375 (0)17 201 9158
BELGIUM	Centre Anti-Poisons/Antigifocentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 B - 1120 Bruxelles/Brussel	+32 70 245 245
BULGARIA	Национален токсикологичен информационен център National Clinical Toxicology Centre, Emergency Medical Institute "Pirogov"	21 Tolleben Boulevard 1606 SOFIA	+359 2 9154 409
CROATIA	Poisons Control Centre Institute of Medical Research & Occupational Health	Ksaverska Cesta 2 P.O. Box 291 HR-10000 Zagreb	+385 1 234 8342
CZECH REPUBLIC	Toxikologické informační středisko Clinic For Occupational Medicine, 1st Medical Faculty, Charles University	Na Bojišti 1 120 00 Praha 2	+42 2 2491 9293 +42 2 2491 5402
DENMARK	Gifflinjen Bispebjerg Hospital	Bispebjerg Bakke 23, 60, 1 DK-2400 København NV	+45 82 12 12 12 +45 35 31 55 55
ESTONIA	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	+372 626 93 90
FINLAND	Myrkytystietokeskus	P.O.B 340 (Haartmaninkatu 4) HUS SF - 00029 Helsinki	+358 9 471 977
FRANCE	ORFILA		+33 1 45 42 59 59
GERMANY	Berliner Betrieb für Zentrale Gesundheitliche Aufgaben	Oranienburger Strasse 285 13437 Berlin	+49 30 19240
GERMANY	Informations und Beratungszentrum für Vergiftungsfälle	Kirrberger Straße, Gebäude 9 D-66421 Homburg/Saar	+49 6841 19240
GERMANY	Beratungstelle bei Vergiftungen, Klinische Toxikologie und Beratungsstelle bei Vergiftungen	Langenbeckstrasse 1 55131 Mainz	+49 6131 19240
GREECE	Poisons Information Centre	11527 Athens	+30 10 779 3777
HUNGARY	Országos Kémiai Biztonsági Intézet (National Institute of Chemical Safety) Egészségügyi Toxikológiai Tájékoztató Szolgálat (Health Toxicological Information Service)	1437 Budapest PO Box 839 1097 Budapest, Nagyvárad tér 2	+36 80 20 11 99
ICELAND	Eitrunarmiðstöðin	Eitrunarmiðstöðin 108 Reykjavik	+354 543 22 22
IRELAND	National Poisons Information Centre	Beaumont Hospital PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2166

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LATVIA	Valsts Toksikoloģijas centra Saindēšanās un zāļu informācijas centrs	2 Hipocrate Street LV 1038 Rīga	+371 67 04 24 73
LITHUANIA	Apsinuodijimų kontrolės ir informacijos biuras	Siltinamių 29 2043 Vilnius	+370 5 236 20 52/+370 687 53 378
MALTA	Medicines & Poisons Info Office	Mater Dei Hospital, Msida MSD 2090 Malta	25450000
NETHERLANDS	Nationaal Vergiftigingen Informatie Centrum National Institute for Public Health and the Environment, NB this service is only available to health professionals	Huispostnummer B.00.118, PO Box 85509 3508 GA Utrecht	+31 30 274 88 88
PORTUGAL	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica (INEM)	Rua Almirante Barroso, 36 1000-013 Lisboa	808 250 143 (for use only in Portugal), +351 21 330 3284
ROMANIA	Biroul pentru Regulamentul Sanitar International si Informare Toxicologica	Str. Dr. Leonie Anastasevici Nr.1-3, Sector 5 50463 Bucuresti	+40 21 318 36 06
SLOVAKIA	Národné toxikologické informačné centrum University Hospital Bratislava	Limbová 5 833 05 Bratislava	+421 2 54 77 4 166
SPAIN	Servicio de Información Toxicológica Instituto Nacional de Toxicología, Departamento de Madrid	Calle Luis Cabrera 9 E-28002 Madrid	+34 91 562 04 20
SWEDEN	Giftinformationscentralen Swedish Poisons Information Centre, Karolinska Hospital	Box 60 500 SE-171 76 Stockholm	+46 8 33 12 31 (International) 112 (National)
SWITZERLAND	Centre Suisse d'Information Toxicologique	Freiestrasse 16 Postfach CH-8028 Zurich	+41 44 251 51 51 (International) 145 (National)

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 3 H226

Eye Dam. 1 H318

STOT SE 3 H336

STOT SE 3 H335

Full text of H-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazardous ingredients

: 1-Methoxy-2-propanol, propan-1-ol

Hazard statements (CLP)

: H226 - Flammable liquid and vapour
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233 - Keep container tightly closed
P261 - Avoid breathing mist, spray, vapours
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection, protective gloves
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER/doctor
P312 - Call a poison center or doctor if you feel unwell
P370+P378 - In case of fire: Use carbon dioxide (CO₂), dry extinguishing powder, Water spray to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed

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P403+P235 - Store in a well-ventilated place. Keep cool
P501 - Dispose of contents/container to an authorised waste collection point

Bulk

P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P405 - Store locked up

2.3. Other hazards

PBT: not yet assessed

vPvB: not yet assessed

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1-Methoxy-2-propanol	(CAS No) 107-98-2 (EC no) 203-539-1 (EC index no) 603-064-00-3	25 - 50	Flam. Liq. 3, H226 STOT SE 3, H336
propan-1-ol	(CAS No) 71-23-8 (EC no) 200-746-9 (EC index no) 603-003-00-0	25 - 50	Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/injuries after inhalation : May cause drowsiness or dizziness. May cause respiratory irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Like any product not designed to be ingested, this product may cause stomach distress if ingested in large quantities.

4.3. Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Water spray.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. In case of fire: stop leak if safe to do so. Do not allow run-off from fire fighting to enter drains or water courses.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flammable resistant/retardant clothing. EN469.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Avoid all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

Protective equipment : Chemical goggles or safety glasses. Clothing impervious to chemical penetration. Wear suitable gloves resistant to chemical penetration. In case of inadequate ventilation wear respiratory protection.

Emergency procedures

: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and gloves. Chemical goggles or safety glasses. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment.

Emergency procedures

: Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment

: Absorb and/or contain spill with inert material, then place in suitable container.

Methods for cleaning up

: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up in non-combustible absorbent material and shove into container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed

: Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling

: No open flames. No smoking. Use only non-sparking tools. Avoid breathing mist/vapours/spray. Use only outdoors or in a well-ventilated area. Take precautionary measures against static discharge.

Hygiene measures

: Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.

Storage conditions

: Keep in fireproof place. Keep container tightly closed. Store in a dry, cool and well-ventilated place.

Incompatible products

: Strong oxidizers.

Incompatible materials

: Heat sources. Sources of ignition.

Prohibitions on mixed storage

: Keep away from incompatible materials.

7.3. Specific end use(s)

Marking.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1-Methoxy-2-propanol (107-98-2)		
EU	IOELV TWA (mg/m ³)	375 mg/m ³
EU	IOELV TWA (ppm)	100 ppm
EU	IOELV STEL (mg/m ³)	568 mg/m ³
EU	IOELV STEL (ppm)	150 ppm
EU	Notes	Skin
Austria	MAK (mg/m ³)	187 mg/m ³
Austria	MAK (ppm)	50 ppm
Austria	MAK Short time value (mg/m ³)	187 mg/m ³
Austria	MAK Short time value (ppm)	50 ppm
Austria	Remark (AT)	(gemessen als Momentanwert), (H)
Belgium	Limit value (mg/m ³)	375 mg/m ³
Belgium	Limit value (ppm)	100 ppm
Belgium	Short time value (mg/m ³)	568 mg/m ³
Belgium	Short time value (ppm)	150 ppm

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1-Methoxy-2-propanol (107-98-2)		
Belgium	Remark (BE)	D
Czech Republic	Expoziční limity (PEL) (mg/m ³)	270 mg/m ³
Czech Republic	Expoziční limity (PEL) (ppm)	73.17 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	550 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (ppm)	149.05 ppm
Czech Republic	Remark (CZ)	D
Denmark	Grænseværdie (langvarig) (mg/m ³)	185 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	50 ppm
Denmark	Grænseværdie (kortvarig) (mg/m ³)	370 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	100 ppm
Finland	HTP-arvo (8h) (mg/m ³)	370 mg/m ³
Finland	HTP-arvo (8h) (ppm)	100 ppm
Finland	HTP-arvo (15 min)	560 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	150 ppm
Finland	Huomautus (FI)	Iho
France	VME (mg/m ³)	188 mg/m ³
France	VME (ppm)	50 ppm
France	VLE (mg/m ³)	375 mg/m ³
France	VLE (ppm)	100 ppm
France	Note (FR)	Peau
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	370 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	100 ppm
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	740 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	200 ppm
Hungary	AK-érték	375 mg/m ³
Hungary	CK-érték	568 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	375 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	100 ppm
Ireland	OEL (15 min ref) (mg/m ³)	568 mg/m ³
Ireland	OEL (15 min ref) (ppm)	150 ppm
Lithuania	IPRV (mg/m ³)	190 mg/m ³
Lithuania	IPRV (ppm)	50 ppm
Lithuania	TPRV (mg/m ³)	300 mg/m ³
Lithuania	TPRV (ppm)	75 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	375 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	563 mg/m ³
Netherlands	Remark (MAC)	(H)
Poland	NDS (mg/m ³)	180 mg/m ³
Poland	NDSch (mg/m ³)	360 mg/m ³
Slovakia	NPHV (priemerná) (mg/m ³)	375 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	100 ppm
Slovakia	Upozornenie (SK)	(K)
Spain	VLA-ED (mg/m ³)	375 mg/m ³
Spain	VLA-ED (ppm)	100 ppm
Spain	VLA-EC (mg/m ³)	568 mg/m ³
Spain	VLA-EC (ppm)	150 ppm
Spain	Notes	vía dérmica, VLI
Sweden	nivågränsvärde (NVG) (mg/m ³)	190 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	300 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	75 ppm

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1-Methoxy-2-propanol (107-98-2)		
Sweden	Anmärkning (SE)	H
United Kingdom	WEL TWA (mg/m ³)	375 mg/m ³
United Kingdom	WEL TWA (ppm)	100 ppm
United Kingdom	WEL STEL (mg/m ³)	560 mg/m ³
United Kingdom	WEL STEL (ppm)	150 ppm
Norway	Gjennomsnittsverdier (AN) (mg/m ³)	180 mg/m ³
Norway	Gjennomsnittsverdier (AN) (ppm)	50 ppm
Norway	Merknader (NO)	H
Switzerland	VME (mg/m ³)	360 mg/m ³
Switzerland	VME (ppm)	100 ppm 20 ppm (urina; fine dell'esposizione / del turno)
Switzerland	VLE (mg/m ³)	720 mg/m ³
Switzerland	VLE (ppm)	200 ppm
propan-1-ol (71-23-8)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	1000 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	400 ppm
Spain	VLA-EC (mg/m ³)	1000 mg/m ³
Spain	VLA-EC (ppm)	400 ppm
Spain	Notes	via dérmica,

8.2. Exposure controls

Appropriate engineering controls	: Avoid creating mist or spray. Avoid splashing. Eyewash stations. Provide local exhaust ventilation of closed transfer systems to minimize exposures.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear suitable gloves resistant to chemical penetration. Impermeable protective nitrile gloves. EN 374.
Eye protection	: In case of splashing or aerosol production: protective goggles. Chemical goggles or safety glasses. EN 166.
Skin and body protection	: Wear suitable protective clothing. Impervious clothing. EN702.
Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Use an approved respirator equipped with oil/mist cartridges. EN 12083.
Other information	: Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Solid marker containing liquid colored paint.
Colour	: Black.
Odour	: No data available
Odour threshold	: No data available
pH	: 5.7 @ 20 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 96 °C
Flash point	: 23 °C
Auto-ignition temperature	: 287 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapour, Flammable liquid and vapour
Vapour pressure	: 14 mm Hg @ 20 °C
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.9 g/cm ³ @ 20 °C
Solubility	: Miscible with water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 5 mPa.s @ 20 °C

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Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 1.7 vol % 13.5 g/m ³

9.2. Other Information

VOC content : 82 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture. Flammable liquid and vapour.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid excessive heat or cold. Direct sunlight. Heat. Keep away from sources of ignition. Open flame. Overheating. Sparks.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

May release flammable gases. Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

1-Methoxy-2-propanol (107-98-2)	
LD50 oral rat	4016 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 inhalation rat (ppm)	> 7000 ppm 6 hr
ATE CLP (oral)	4016.000 mg/kg bodyweight
propan-1-ol (71-23-8)	
LD50 oral rat	5400 mg/kg
LD50 dermal rabbit	4032 mg/kg
LC50 inhalation rat (mg/l)	> 33.8 mg/l/4h
ATE CLP (oral)	5400.000 mg/kg bodyweight
ATE CLP (dermal)	4032.000 mg/kg bodyweight

Skin corrosion/irritation : Not classified

Serious eye damage/Irritation : Causes serious eye damage.

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness. May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

SECTION 12: Ecological information

12.1. Toxicity

1-Methoxy-2-propanol (107-98-2)	
LC50 fish 1	20800 mg/l
EC50 Daphnia 1	23300 mg/l
ErC50 (algae)	> 1000 mg/l
propan-1-ol (71-23-8)	
LC50 fish 1	4555 mg/l 96 h
EC50 Daphnia 1	1000 mg/l 48 h

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12.2. Persistence and degradability

DURA-INK® 5, 15, 25, 55, 60, 200 Black Markers	
Persistence and degradability	May cause long-term adverse effects in the environment.
1-Methoxy-2-propanol (107-98-2)	
Persistence and degradability	Readily biodegradable.
Biodegradation	96 % 28 d
propan-1-ol (71-23-8)	
Persistence and degradability	Readily biodegradable.
Biodegradation	75 % 20 d

12.3. Bioaccumulative potential

1-Methoxy-2-propanol (107-98-2)	
Bioaccumulative potential	Not expected to bioaccumulate.
propan-1-ol (71-23-8)	
BCF fish 1	0.88
Log Pow	0.2

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

DURA-INK® 5, 15, 25, 55, 60, 200 Black Markers	
PBT: not yet assessed	
vPvB: not yet assessed	

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. 08 00 00 - WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS 08 01 00 - wastes from MFSU and removal of paint and varnish 08 01 13* - sludges from paint or varnish containing organic solvents or other dangerous substances
H code	: H3-B - 'Flammable': liquid substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55 °C. H4 - 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation. H5 - 'Harmful': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not considered a dangerous good for transport regulations

14.2. UN proper shipping name

Proper Shipping Name (ADR)

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

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14.6. Special precautions for user

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Inland waterway transport

Carriage prohibited (ADN) : No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 82 %

15.1.2. National regulations

Germany

Water hazard class (WGK) : 2 - hazard to waters

WGK remark : Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS)

Storage class (LGK) : LGK 3 - Flammable liquids

VbF class : A I - Liquids with a flashpoint below 21 °C

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

according to Regulation (EC) No. 453/2010

Indication of changes:

Original Document.

Abbreviations and acronyms:

	ACGIH (American Conference of Government Industrial Hygienists)
	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	DNEL: Derived No Effect Level
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	NOEC: No Observable Effect Concentration
	OSHA: Occupational Safety & Health Administration
	PBT: Persistent, Bioaccumulative, Toxic
	PNEC: Predicted No Effect Level
	STEL: Short Term Exposure Limits
	TSCA: Toxic Substances Control Act
	TWA: Time Weight Average

DURA-INK® 5, 15, 25, 55, 60, 200 Black Markers

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Data sources

- : ESIS (European chemical Substances Information System; accessed at: <http://esis.jrc.ec.europa.eu/index.php?PGM=cla>. ACGIH 2000.
- European Chemicals Agency (ECHA) Registered Substances list. Accessed at <http://echa.europa.eu/>.
- Krisler Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
- National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.
- OSHA 29CFR 1910.1200 Hazard Communication Standard.
- REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

Other information

: None.

Full text of R-, H- and EUH-phrases:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H318	Causes serious eye damage
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
R10	Flammable
R11	Highly flammable
R41	Risk of serious damage to eyes
R67	Vapours may cause drowsiness and dizziness
F	Highly flammable
Xi	Irritant

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Flam. Liq. 3	H226	On basis of test data
Eye Dam. 1	H318	Calculation method
STOT SE 3	H336	Calculation method
STOT SE 3	H335	Calculation method

LA-CO EU CLP SDS

SDS Prepared by: The Redstone Group, LLC
6077 Frantz Rd.
Suite 206
Dublin, OH USA 43016
T 614-923-7472
www.redstonegrp.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



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

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Wt.%</u>	<u>GHS Classifications according to UNECE 3rd Revised Edition</u>
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

SAFETY DATA SHEET

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.

SAFETY DATA SHEET

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.



SAFETY DATA SHEET

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.

Prepared by:

LEHDER Environmental Services Limited (519) 336-4101
www.lehder.com

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