

# SAFETY DATA SHEET

11-2-2015



## Section 1: Identification

**Product Name:** Marks-A-Lot® Dry Erase Marker inks

### Manufacturer Information

Avery Products Corporation  
50 Pointe Drive  
Brea, California 92821  
Phone: 800-462-8379

**Emergency Phone Number:** 1-800-222-1222 (Poison Control Center)

This product bears the AP (Approved Product -Non-Toxic) seal of The Art & Creative Materials Institute, Inc (ACMI). These products are certified by a medical expert to contain no materials in sufficient quantities to be toxic or injurious to humans or to cause acute or chronic health problems.

## Section 2: Hazard(s) Identification

### Label elements



Hazard symbols:

Signal word : Danger

Hazard statements :

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment. Take

P243 precautionary measures against static discharge.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305 IF IN EYES: rinse cautiously with water for several minutes.

P351 Remove contact lenses, if present and easy to do. Continue

P338 rinsing.

P337 If eye irritation persists: get medical advice/attention.

P313

Storage :

P403 Store in a well-ventilated place. Keep cool.

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## Section 3: Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS Number</u>
Ethanol	64-17-5
Propan-2-ol	67-63-0
Dioctyl maleate	205-524-5

## Section 4: First Aid Measures

### Description of first aid measures

General advice : Take off all contaminated clothing immediately

In case of inhalation : Remove to fresh air. If symptoms persist, seek medical advice. If unconscious place in recovery position.

In case of skin contact : Wash off with plenty of water. If skin irritation persists, seek medical advice.

In case of eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Consult an eye specialist immediately.

In case of ingestion : Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting – seek medical advice.

### Most important symptoms and effects, both acute and delayed

Symptoms : No further information available.

Effects : No further information available.

### Indication of immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

No further information available.

## Section 5: Fire-Fighting Measures

### Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: High volume water jet.

### Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Highly flammable. Vapours may form explosive mixtures with air. In case of fire hazardous decomposition products may be produced, such as carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>).

### Advice for fire-fighters

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit).

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Further information: Cool closed containers exposed to fire with water spray. Heating will cause a pressure rise – with risk of bursting. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. Provide adequate ventilation. Keep away from heat and sources of ignition. Avoid contact with skin and eyes. Do not breathe vapours. For personal protection see Section 8.

### Environmental precautions

Environmental precautions: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

### Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up: Contain spillage, and then collect with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

Further information: Treat recovered material as described in Section 13.

### Reference to other sections

For personal protection see Section 8.

## Section 7: Handling and Storage

### Precautions for safe handling

Advice on safe handling: Keep container tightly closed. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapours. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of the working day. Take off all contaminated clothing immediately. Avoid contact with skin and eyes. Do not breathe vapours of spray mist.

### Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep in an area equipped with solvent resistant flooring. Store in original container.

Advice on protection against fire and explosion: Combustible liquid. Keep away from sources of ignition – no smoking. Take measures to prevent the build-up of electrostatic charge. Vapours may form explosive mixtures in air. Use only in an area containing explosion proof equipment.

Further information on storage conditions: Keep tightly closed in a dry and cool place. Keep in a well-ventilated place. Keep away from heat. Keep away from direct sunlight.

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Advice on common storage: Incompatible with oxidizing agents. Keep away from food, drink and animal feeding stuffs.

## Specific end uses

Specific use(s): No information available.

## Section 8: Exposure Controls/Personal Protection

### COMPONENT: ethanol (ethyl alcohol)

CAS No. 64-17-5

ACGIH TLV (US, 4/2014):	STEL: 1000 ppm 15 min
OSHA PEL (US, 2/2103):	TWA: 1000 ppm 8 hours
	TWA: 1900 mg.m <sup>-3</sup> 8 hours
NIOSH REL (US, 10/2013):	TWA: 1000 ppm 10 hours
	TWA: 1900 mg.m <sup>-3</sup> 10 hours
OSHA PEL 1989 (US, 3/1989):	TWA: 1000 ppm 8 hours
	TWA: 1900 mg.m <sup>-3</sup> 8 hours

### COMPONENT: propan-2-ol (isopropyl alcohol)

CAS no. 67-63-0

ACGIH TLV (US, 3/2012):	TWA: 200 ppm 8 hours
	STEL: 400 ppm 15 min
OSHA PEL 1989 (US, 3/1989):	TWA: 400 ppm 8 hours
	TWA: 980 mg.m <sup>-3</sup> 8 hours
	STEL: 500 ppm 15 min
	STEL: 1225 mg.m <sup>-3</sup> 15 min
NIOSH REL (US, 1/2013):	TWA: 400 ppm 10 hours
	TWA: 980 mg.m <sup>-3</sup> 10 hours
	STEL: 500 ppm 15 min
	STEL: 1225 mg.m <sup>-3</sup> 15 min
OSHA PEL (US, 6/2010):	TWA: 400 ppm 8 hours
	TWA: 980 mg.m <sup>-3</sup> 8 hours

## Engineering measures

Refer to protective measures listed in Sections 7 and 8.

## Personal protective equipment

### Respiratory protection

Advice: Required, if exposure limit is exceeded (e.g. OEL). Respirator with a gas filter. Recommended filter type: A.

### Hand protection

Advice: Wear suitable gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Protective gloves should be replaced at first signs of wear.

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Material: Butyl-rubber

Gloves : >= 8 h

Glove thickness: 0.5 mm

Material: Fluorocarbon rubber

Gloves : >= 8 h

Glove thickness : 0.4 mm

Material: Polychloroprene

Gloves : >= 2 h

Glove thickness : 0.5 mm

## *Eye protection*

Advice: Safety glasses.

## *Skin and body protection*

General advice: Wear suitable protective clothing.

## **Environmental exposure controls**

General advice: Do not let product enter drains. If the product contaminates rivers and lakes or drains inform respective authorities.

## **Section 9: Physical and Chemical Properties**

Appearance:	Various colours, liquid
Odour:	Alcohol-like
Odour threshold:	Not determined
pH:	3 to 9
Melting point / freezing point:	-114.5°C
Initial boiling point and boiling range:	78.3°C
Flash point:	12°C
Evaporation rate:	Not determined
Flammability:	Not determined
Upper/lower flammability or explosive limits:	15% (V), 3.5% (V)
Vapour pressure:	59 hPa 20°C
Vapour density:	Not determined
Relative density:	Not determined
Solubility:	Miscible in water, readily miscible with solvents
Partition coefficient:	n-octanol/water: Not determined
Auto-ignition temperature:	425°C
Decomposition temperature:	Not determined
Viscosity:	4 to 13cP (20°C)

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Explosive properties: Not determined  
Oxidising properties: Not determined

## Section 10: Stability and Reactivity

### Reactivity

Advice: Stable under recommended storage conditions.

### Chemical stability

Advice: Stable under normal conditions.

### Possibility of hazardous reactions

Hazardous reactions: No information available.

### Conditions to avoid

Conditions to avoid: Heat, flames and sparks.

### Incompatible Materials

Materials to avoid: Alkali metals, alkaline earth metals, strong oxidizing agents, nitric acid, sulphuric acid, peroxides (e.g. hydrogen peroxide).

### Hazardous decomposition products

Hazardous decomposition products: Under fire conditions: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>).

## Section 11: Toxicological Information

**COMPONENT:** ethanol (ethyl alcohol)

**CAS No.** 64-17-5

### Acute toxicity

#### Oral

Value type : LD50

Value : 6200 mg/kg

Species : rat

#### Inhalation

Value type : LC50

Value : 124.7 mg/kg

Exposure time : 4 h

Species : rat

### Irritation

#### Skin

Remarks : Degreases the skin, which may cause dryness. Prolonged or repeated skin contact may result in dermatitis.

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## Eyes

Remarks : Splashes in eyes may cause strong pain. Vapour can cause irritation.

## Sensitisation

Remarks: Did not cause sensitization on laboratory animals.

## Other relevant toxicity information

All numerical values for acute toxicity are calculated on the pure substances.

Experiences with human exposure: Repeated and prolonged exposure to solvents may cause brain and nervous system damage.

**COMPONENT: propan-2-ol (isopropyl alcohol)**

**CAS No. 67-63-0**

## Acute toxicity

### Oral

Value type : LD50

Value : 5280 mg/kg

Species : rat

### Inhalation

Value type : LC50

Value : 72.6 mg/kg

Exposure time : 4 h

Species : rat

Value type : LC50

Value : 47.5 mg/l

Exposure time : 8 h

Species : rat

### Dermal

Value type : LD50

Value : 12800 mg/kg

Species : rabbit

### Irritation

#### Skin

Species : rabbit

Result : No skin irritation

#### Eyes

Species : rabbit.

Result : Irritating to eyes

## Sensitisation

Species: Guinea pig

Result : Not sensitizing

Method : Buehler test

## Other relevant toxicity information

All numerical values for acute toxicity are calculated on the pure substances.

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Experiences with human exposure : Prolonged skin contact may defat the skin and result in dermatitis. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Risk of product entering the lungs on vomiting after ingestions. Liver injury may occur.

**COMPONENT: dioctyl maleate**

**CAS No. 142-16-5**

**Acute toxicity**

**Oral**

Value type : LD50

Value : <2000 mg/l

Species : rat

**Inhalation**

Value type : LC50

Value : >5000 mg/m3

**Dermal**

Value type : LD50

Value : 15 ml/kg

## Section 12: Ecological Information

**COMPONENT: ethanol (ethyl alcohol)**

**CAS No. 64-17-5**

**Acute toxicity**

**Fish**

Species : Leuciscus idus (Golden orfe)

Value type : LC50

Value : 8150 mg/l

**Toxicity to daphnia and other aquatic invertebrates**

Species : Daphnia magna

Exposure time : 48 h

Value type : EC50

Value : 9268 – 14221 mg/l

**Algae**

Species : Scenedesmus quadricauda

Exposure time : 168 h

Value type : EC0

Value : 5000 mg/l

**Bacteria**

Species : Pseudomonas putide

Value type : EC0

Value : 6500 mg/l

Remarks : Cell-proliferation inhibition test

**Biodegradability**



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Remarks: Readily biodegradable

## **COMPONENT: propan-2ol (isopropyl alcohol)**

**CAS No. 67-63-0**

### **Acute toxicity**

#### **Fish**

Species : Pimephales promelas

Exposure time : 96 h

Value type : LC50

Value : 9640 mg/l

#### **Toxicity to daphnia and other aquatic invertebrates**

Species : Daphnia magna

Exposure time : 48 h

Value type : EC50

Value : 13299 mg/l

#### **Algae**

Species : Desmodesmus subspicatus (green algae)

Exposure time : 72 h

Value type : EC50

Value : >1000 mg/l

#### **Bacteria**

Species : Pseudomonas putide

Exposure time : 18 h

Value type : EC10

Value : 5175 mg/l

Method : DIN 38412

Species : Activated sludge

Value type : EC50

Value : >1000 mg/l

Remarks : Respiration inhibition of activated sludge

## **COMPONENT: dioctyl maleate**

**CAS No. 142-16-5**

### **Acute toxicity**

#### **Fish**

Species : fish

Exposure time : 48 h

Value type : LC50

Value : 86 mg/l

#### **Toxicity to daphnia and other aquatic invertebrates**

Species : Daphnia magna

Exposure time : 48 h

Value type : EC50

Value : >0.76 mg/l

#### **Algae**

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Species : Algae

Exposure time : 72 h

Value type : IC50

Value : >100 mg/l

**COMPONENT: etanol; ethyl alcohol**

**CAS No. 64-17-5**

**Persistence and biodegradability**

**Biodegradability**

Remarks: Readily biodegradable

**COMPONENT: propan-2-ol; isopropyl alcohol**

**CAS No. 67-63-0**

**Persistence and biodegradability**

**Biodegradability**

Biodegradation: 95%

Exposure time: 21d

Method: OECD 301 E

Remarks: Readily biodegradable

**Bioaccumulative potential**

**COMPONENT: propan-2-ol; isopropyl alcohol**

**CAS No. 67-63-0**

**Bioaccumulation**

Remarks: Does not bioaccumulate

**Mobility in soil**

Mobile in water environment

**Results of PBT and vPvB assessment**

No information available

**Other adverse effects**

All numerical values for ecotoxicity effect are calculated on the pure substances. Do not flush into surface of sanitary sewer system. Avoid subsoil penetration.

## Section 13: Disposal Considerations

**Waste treatment methods**

Product: Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not empty into drains. Contact waste disposal services.

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Contaminated packaging: Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning. Packaging that cannot be cleaned is to be disposed of in the same manner as the product. Do not burn, or use a cutting torch on the empty drum. Risk of explosion.

## Section 14: Transportation Information

### UN number

1993

### UN proper shipping name

ADR : Flammable Liquid n.o.s (contains ethanol)

RID : Flammable Liquid n.o.s (contains ethanol)

IMDG : Flammable Liquid n.o.s (contains ethanol)

### Transport hazard class(es)

ADR-Class : 3

(Labels ; classification code ; hazard identification number ; tunnel restriction code): 3 ; F1 ; 33 : (D/E)

RID-Class : 3

(Labels ; classification code ; hazard identification number) 3 : F1 ; 33

IMDG-Class : 3

(Labels ; EmS) : 3 ; F-E, S-D

### Packaging group

ADR : II

RID : II

IMDG : II

### Environmental hazards



Labeling according to 5.2.1.8 ADR:



Labeling according to 5.2.1.8 RID:



Labeling according to 5.2.1.6.3 IMDG:

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Classification as environmentally hazardous according to 2.9.3 IMDG: Yes

Classified as 'P' according to 2.10 IMDG: Yes

## Special precautions for user

Not applicable.

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

IMDG : Not applicable.

## Section 15: Regulatory Information

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

No information available.

### Chemical safety assessment

No information available.

## Section 16: Other Information

### Full text of H-Statements referred to under Sections 2 and 3

H225 : Highly flammable liquid and vapour.

H319 : Causes serious eye irritation.

H336 : May cause drowsiness or dizziness.

H373 : May cause damage to organs through prolonged or repeated exposure.

H410 : Very toxic to aquatic life with long lasting effects.

H411 : Toxic to aquatic life with long lasting effects.

### Further information

**LAST REVISION DATE: 05/15/2015**

### COLOR INFORMATION

This SDS applies to the following colors which are associated with hazardous and/or non-hazardous ingredients:

Color Hazardous Ingredients

Black (None)

Blue (None)

Brown (None)

Green (None)

Orange (None)

Purple (None)

Red (None)

Yellow (None)

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## BRAND NAMES

This SDS applies to the following brand names:

Brand Name

Marks-A-Lot® Dry Erase Marker

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of this material is the sole responsibility of the user. No representations or warranties, either expressed or implied, of MERCHANTABILITY, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the material to which the information refers. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.