

02/17/2012

Revision date: 02/17/2012

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** **MARKER, IDEAL MARK/MARK-X (All Colors) / Jumbo Insta**
- **Application of the substance / the preparation** *Printing inks*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*Diagraph MSP, an ITW Company
Marking & Stenciling Products Division
5307 Meadowland Parkway
Marion, IL 62959*
- Customer Sales & Service:
800-521-3047
618-997-3321
618-997-1766 Fax*
- **Information Department:** *msds@diagrammsp.com*
- **Emergency telephone number:**
*Contact Infotrac: (800) 535 5053 (US only)
International: +1 352 323 3500*




2 Composition/information on ingredients

- **Chemical characterization:** *Mixtures*
- **Description:** *Mixture of the substances listed below with nonhazardous additions.*

· Dangerous components:		
1330-20-7	xylene (mix)	60-80%
100-41-4	ethylbenzene	5-20%
8052-41-3	Mineral spirits	5-20%
108-88-3	toluene	0-5%

- **SVHC**
This ink contains no SVHC's listed in Annex XV at the time of the revision of the MSDS listed in Section 16.
- **Additional information** *For the wording of the listed risk phrases refer to section 16.*

3 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 **Harmful**
Harmful by inhalation and in contact with skin.
-  **Irritant**
Irritating to skin.
-  **Flammable.**
- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

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· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Code letter and hazard designation of product:**

Harmful

· **Hazard-determining components of labelling:**

xylene (mix)

· **Risk phrases:**

Flammable.

Harmful by inhalation and in contact with skin.

Irritating to skin.

· **Safety phrases:**

Keep out of the reach of children.

Keep container in a well-ventilated place.

Keep away from food, drink and animal feedingstuffs.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point

Wear suitable protective clothing and gloves.

If swallowed, seek medical advice immediately and show this container or label.

· **Classification system**

· **NFPA Ratings (scale 0-4)**



Health = 2

Fire = 3

Reactivity = 0

· **HMIS Rating (scale 0-4)**



Health - *2

Flammability - 3

Reactivity - 0

· **Routes of Entry**

Skin

Ingestion

Inhalation

· **Target Organs** Eyes

· **Irritancy**

Eyes

Respiratory Tract

Skin

· **Sensitizing Capability** None known

· **Reproductive Effects** None known

· **Cancer Information** Not known to be carcinogenic.

4 First aid measures

· **General information**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.

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- **After swallowing**

If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

5 Firefighting measures

- **Suitable extinguishing agents** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents**
Water.
Water with full jet.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Maximum storage temperature:** 120 F (49 C)
- **Minimum storage temperature:** 35 F (2 C)
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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· **Components with limit values that require monitoring at the workplace:**

1330-20-7 xylene (mix)

PEL	435 mg/m ³ , 100 ppm
REL	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm
BEI	

100-41-4 ethylbenzene

PEL	435 mg/m ³ , 100 ppm
REL	Short-term value: 545 mg/m ³ , 125 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV	Short-term value: 543 mg/m ³ , 125 ppm Long-term value: (434) NIC-217 mg/m ³ , (100) NIC-50 ppm
BEI, NIC-A3	

8052-41-3 Mineral spirits

PEL	2900 mg/m ³ , 500 ppm
REL	Short-term value: C 1800* mg/m ³ Long-term value: 350 mg/m ³ *15-min
TLV	525 mg/m ³ , 100 ppm

108-88-3 toluene

PEL	Short-term value: C 300; 500* ppm Long-term value: 200 ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm
TLV	75 mg/m ³ , 20 ppm NIC-BEI

· **Personal protective equipment**

· **General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:**

Tightly sealed goggles.

9 Physical and chemical properties

· General Information	
· Appearance:	
Form:	Liquid
Color:	According to product specification
· Odor:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	undetermined
Boiling point/Boiling range:	136°C (277 °F)
· Flash point:	26°C (79 °F)
· Ignition temperature:	230°C (446 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	1.0 Vol %
Upper:	7.8 Vol %
· Vapor pressure at 20°C (68 °F):	9.5 hPa (7 mm Hg)
· Density:	Not determined
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	
Not miscible or difficult to mix	
· Segregation coefficient (n-octanol/water):	
Not determined.	
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	84.8 %
Solids content:	12.5 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.

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· **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

1330-20-7 xylene (mix)		
Oral	LD50	8700 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rbt)
Inhalative	LC50/4 h	6350 mg/l (rat)

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

12 Ecological information

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water.

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Comply with all Federal, State, and Local regulations regarding disposal.

· **Uncleaned packagings:**

· **Recommendation:**

Disposal must be made according to official regulations.

Comply with all Federal, State, and Local regulations regarding disposal.

14 Transport information

· **UN-Number**

· **DOT**

· **ADR, IMDG, IATA**

UN1210

1210

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- **UN proper shipping name**
- **DOT, IMDG, IATA**
- **ADR**

PRINTING INK
1210 PRINTING INK (not viscous)

- **Transport hazard class(es)**
- **DOT, IMDG, IATA**



- **Class**
- **Label**

3 Flammable liquids.
3

- **ADR**



- **Class**
- **Label**

3 Flammable liquids
3

- **Packing group**
- **DOT, ADR, IMDG, IATA**

III

- **Environmental hazards:**
- **Marine pollutant:**

No

- **Special precautions for user**
- **Danger code (Kemler):**
- **EMS Number:**

Warning: Flammable liquids
30
F-E,S-D

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

- **Transport/Additional information:**

- **DOT**
- **Remarks:**

All UN 1210 Printing Inks of Packing Group II or III can be shipped by ground transportation Limited Quantity if quantity is 1 gallon or less per 49 CFR 172.101 table and 172.102 special provision number 149.
For domestic GROUND Shipments, this product is classified as "Consumer Commodity" ORM-D.
This product should not be shipped by air for domestic shipments at this time.

15 Regulatory information

- **Carcinogen categories**

- **EPA (Environmental Protection Agency)**

1330-20-7	xylene (mix)	I
100-41-4	ethylbenzene	D
108-88-3	toluene	II
71-43-2	benzene	A

- **IARC (International Agency for Research on Cancer)**

1330-20-7	xylene (mix)	3
100-41-4	ethylbenzene	2B

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1333-86-4	Carbon black	2B
108-88-3	toluene	3
71-43-2	benzene	1

· **NTP (National Toxicology Program)**

71-43-2	benzene	K
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· **TLV (Threshold Limit Value established by ACGIH)**

1330-20-7	xylene (mix)	A4
100-41-4	ethylbenzene	A3
1333-86-4	Carbon black	A4
108-88-3	toluene	A4
71-43-2	benzene	A1

· **MAK (German Maximum Workplace Concentration)**

100-41-4	ethylbenzene	3A
1333-86-4	Carbon black	3B
71-43-2	benzene	1

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

1333-86-4	Carbon black	
71-43-2	benzene	

· **OSHA-Ca (Occupational Safety & Health Administration)**

71-43-2	benzene	
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· **Product related hazard information:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**

Harmful

· **Hazard-determining components of labelling:**

xylene (mix)

· **Risk phrases:**

Flammable.

Harmful by inhalation and in contact with skin.

Irritating to skin.

· **Safety phrases:**

Keep out of the reach of children.

Keep container in a well-ventilated place.

Keep away from food, drink and animal feedingstuffs.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point

Wear suitable protective clothing and gloves.

If swallowed, seek medical advice immediately and show this container or label.

· **National regulations**

· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

· **Other regulations, limitations and prohibitive regulations**

· **OSHA Regulations**

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance (29 CFR 1910.): Not listed

· **Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Section 313:**

1330-20-7	xylene (mix)	
100-41-4	ethylbenzene	
108-88-3	toluene	

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· **CONEG:**

This product has not been tested for heavy metals covered under the various CONEG laws. However, raw materials used to make this product do not contain mercury, lead, cadmium, or hexavalent chromium and none are added during manufacture.

· **Toxic Substances Control Act TSCA Status:**

All components of this product are listed in the EPA's Inventory of Chemical Substances as required under the Toxic Substances Control Act (TSCA).

· **California Proposition 65 (Chemicals known to cause cancer):**

100-41-4	ethylbenzene
71-43-2	benzene

· **California Proposition 65 (Chemicals known to cause reproductive toxicity):**

108-88-3	toluene
71-43-2	benzene

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **File: 514**

· **Revision Information (All previous revisions obsolete):**

02-17-2012 New Shipping Format, SVHC added, Added Jumbo Insta

09-27-2011 Updated to reflect reformulation of ink.

07-13-10 Updated SDS to reflect new formulation of Black ink.

04-13-10 Combined similar markers to one SDS

12/4/2009 Updated MSDS due to change of concentraion of trace benzene from xylene verified by vendor

08-20-2008 THIS REVISION: Updated to include all colors; Section 2: Updated Dangerous Components; Section 3: Updated Cancer Warning; Section 8: Update TLV; Section 9: Updated Solvent and Solids Content; Section 14: Updated Shipping information, Section 15: Updated Regulatioins, and Prop. 65

06/06/2007 UPDATED COMPANY INFORMATION AND REVIEWED

PREVIOUS REVISIONS: 03/28/2005 INITIAL RELEASE

— USA —