

1 Identification of substance:

- Product details:
- Trade name: **MARKER, 2018 YELLOW**
- Application of the substance / the preparation: *Printing inks*
- Manufacturer/Supplier:
Diagraph MSP, an ITW Company
Marking & Stenciling Products Division
5307 Meadowland Parkway
Marion, IL 62959
- Customer Sales & Service:
800-521-3047 USA
618-997-3321
618-997-1766 Fax

email: msds@diagraphms.com

2 Composition/Data on components:

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

Dangerous components:

| | | |
|-----------|----------------------|--------|
| 107-98-2 | 1-methoxy-2-propanol | 40-60% |
| 1330-20-7 | xylene (mix) | 5-20% |
| 100-41-4 | ethylbenzene | 0-5% |
| 8052-41-3 | Mineral spirits | 0-5% |

- Additional information: *For the wording of the listed risk phrases refer to section 16.*

3 Hazards identification

- Hazard description:



Toxic

- Information pertaining to particular dangers for man 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.

Flammable.

Harmful by inhalation and in contact with skin.

Irritating to skin.

- Classification system

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- 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

(Contd. on page 2)

USA

04/06/2005

Revision date: 04/05/2005

Trade name: **MARKER, 2018 YELLOW**

(Contd. of page 1)

· 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. 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 15 minutes under running water.

Remove contact lenses if necessary.

Seek immediate medical attention.

· **After swallowing**

Drink plenty of water. Do not induce vomiting, if person is conscious. Get immediate medical attention.

5 Fire fighting measures

· **Suitable extinguishing agents** CO₂, sand, extinguishing powder. Do not use water.

· **For safety reasons unsuitable extinguishing agents**

Water.

Water with full jet.

· **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

· **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.

· **Measures for environmental protection:**

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.

· **Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sorbent).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

7 Handling and storage

· **Handling**

· **Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

· **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)

(Contd. on page 3)

USA

04/06/2005

Revision date: 04/05/2005

Trade name: **MARKER, 2018 YELLOW**

Minimum storage temperature 35 F (2 C)

(Contd. of page 2)

8 Exposure controls and personal protection

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

Components with limit values that require monitoring at the workplace:

107-98-2 1-methoxy-2-propanol

| | |
|-----|---|
| REL | Short-term value: 540 mg/m ³ , 150 ppm Long-term value: 360 mg/m ³ , 100 ppm |
| TLV | Short-term value: 553 mg/m ³ , 150 ppm Long-term value: 369 mg/m ³ , 100 ppm |

1330-20-7 xylene (mix)

| | |
|-----|--|
| REL | 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 (o-, m-, & p-isomers) |
| TLV | Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm BEI |

100-41-4 ethylbenzene

| | |
|-----|--|
| REL | 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 mg/m ³ , 100 ppm BEI |

8052-41-3 Mineral spirits

| | |
|-----|--|
| REL | 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 |

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.
Store protective clothing separately.
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.

(Contd. on page 4)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

04/06/2005

Revision date: 04/05/2005

Trade name: **MARKER, 2018 YELLOW**

· Eye protection:



Tightly sealed goggles.

(Contd. of page 3)

9 Physical and chemical properties:

· General Information

Form: Liquid
Color: According to product specification
Odor: Like aromatic solvents.

· Change in condition

Melting point/Melting range: undetermined
Boiling point/Boiling range: 138°C (280°F)

· Flash point: 24°C (75°F)

· Ignition temperature: 230.0°C (446°F)

· 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: 1.1 Vol %
Upper: 7.0 Vol %

· Vapor pressure at 20°C (68°F): 12.0 hPa (9 mm Hg)

· Density: Not determined

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix

· Solvent content:

Organic solvents: 75.0 %

· Solids content: 25.0 %

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Dangerous reactions: No dangerous reactions known
- Dangerous products of decomposition: 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: Irritating to the eyes.

· Sensitization: No sensitizing effects known.

· Additional toxicological information:

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

(Contd. on page 5)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

04/06/2005

Revision date: 04/05/2005

Trade name: **MARKER, 2018 YELLOW**

Irritant

(Contd. of page 4)

12 Ecological information:

· **General notes:**

Water danger class 3 (Self-assessment): extremely hazardous for water.

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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

13 Disposal considerations

· **Product:**

· **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

· **DOT regulations:**



· **Hazard class:**

3

· **Identification number:**

UN1210

· **Packing group:**

III

· **Proper shipping name (technical name):** PRINTING INK

· **Label**

3

· **Remarks:**

For U.S. Ground shipments, this product is classified as "Consumer Commodity" ORM-D.

· **Land transport ADR/RID (cross-border)**



· **ADR/RID class:**

3 Flammable liquids

· **Danger code (Kemler):**

30

· **UN-Number:**

1210

· **Packaging group:**

III

· **Description of goods:**

1210 PRINTING INK

· **Maritime transport IMDG:**



· **IMDG Class:**

3

· **UN Number:**

1210

· **Label**

3

· **Packaging group:**

III

· **EMS Number:**

F-E,S-D

· **Marine pollutant:**

No

(Contd. on page 6)

UNA

04/06/2005

Revision date: 04/05/2005

Trade name: **MARKER, 2018 YELLOW**

(Contd. of page 5)

Propper shipping name: **PRINTING INK**

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 3
UN/ID Number: 1210
Label: 3
Packaging group: III
Propper shipping name: **PRINTING INK**

15 Regulations

Carcinogenity categories

EPA (Environmental Protection Agency)

1330-20-7 xylene (mix) D

100-41-4 ethylbenzene D

IARC (International Agency for Research on Cancer)

1330-20-7 xylene (mix) 3

NTP (National Toxicology Program)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

1330-20-7 xylene (mix) A4

MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

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

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Product related hazard information:

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

Hazard symbols:

Toxic

Hazard-determining components of labelling:

Mineral spirits

xylene (mix)

Risk phrases:

Flammable.

Harmful by inhalation and in contact with skin.

Irritating to skin.

Safety phrases:

Avoid exposure - obtain special instructions before use.

Keep locked up and out of the reach of children.

Keep in a cool place.

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

Wear suitable protective clothing, gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately.

National regulations

Water hazard class: Water danger class 3 (Self-assessment): extremely 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

(Contd. on page 7)

Material Safety Data Sheet
acc. to ISO/DIS 11014

04/06/2005

Revision date: 04/05/2005

Trade name: **MARKER, 2018 YELLOW**

(Contd. of page 6)

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

1330-20-7 xylene (mix)

100-41-4 ethylbenzene

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):

71-43-2 benzene

100-41-4 ethylbenzene

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

71-43-2 benzene

108-88-3 toluene

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.

MSDS Created By: P. GIMSE

File: 445

Revision Information (All previous revisions obsolete): CREATED: 3-28-2005

USA