






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

- **Product identifier**
- **Trade name: Marker, GPX Classic/2018-P/563/Grizzly/Rhino (All Colors)**
- **Relevant identified uses of the substance or mixture and uses advised against**
- **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*
- **Further information obtainable from:** *msds@diagraphmsp.com*
- **Emergency telephone number:**
*Contact Infotrac: (800) 535 5053 (US only)
International: +1 352 323 3500*

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
-  **GHS02 flame**
Flam. Liq. 3 H226 Flammable liquid and vapour.
-  **GHS08 health hazard**
Carc. 1B H350 May cause cancer.
-  **GHS07**
Skin Irrit. 2 H315 Causes skin irritation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
-  **Xn; Harmful**
R20/21: Harmful by inhalation and in contact with skin.
-  **Xi; Irritant**
R38: Irritating to skin.
- R10: 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 is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Label elements**
- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

Safety data sheet

according to 1907/2006/EC, Article 31

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Version number 1

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






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- **Code letter and hazard designation of product:**
Xn Harmful
- **Hazard-determining components of labelling:**
xylene (mix)
- **Risk phrases:**
10 Flammable.
20/21 Harmful by inhalation and in contact with skin.
38 Irritating to skin.
- **Safety phrases:**
2 Keep out of the reach of children.
9 Keep container in a well-ventilated place.
13 Keep away from food, drink and animal feedingstuffs.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
36/37 Wear suitable protective clothing and gloves.
46 If swallowed, seek medical advice immediately and show this container or label.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

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

· **Dangerous components:**

CAS: 1330-20-7 EINECS: 215-535-7	xylene (mix)  Xn R20/21  Xi R38 R10 -----  Flam. Liq. 3, H226  Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	60-80%
CAS: 100-41-4 EINECS: 202-849-4	ethylbenzene  Xn R20  F R11 -----  Flam. Liq. 2, H225  Acute Tox. 4, H332	5-20%
CAS: 107-98-2 EINECS: 203-539-1	1-methoxy-2-propanol R10 -----  Flam. Liq. 3, H226	5-20%
CAS: 108-65-6 EINECS: 203-603-9	2-methoxy-1-methylethyl acetate  Xi R36 R10 -----  Flam. Liq. 3, H226  Eye Irrit. 2, H319	0-5%
CAS: 8052-41-3 EINECS: 232-489-3	Mineral spirits  Xn R65 -----  Carc. 1B, H350; Asp. Tox. 1, H304	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.

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

4 First aid measures

- **Description of 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.

- **After swallowing**

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

- **Information for doctor**

- **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting measures

- **Extinguishing media**

- **Suitable extinguishing agents**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Special hazards arising from the substance or mixture** No further relevant information available.

- **Advice for firefighters**

- **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:**

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

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

- **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.

- **Reference to other sections**

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.

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- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **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 facilities:** No further data; see item 7.
- **Control parameters**

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

1330-20-7 xylene (mix)	
WEL	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
100-41-4 ethylbenzene	
WEL	Short-term value: 552 mg/m ³ , 125 ppm Long-term value: 441 mg/m ³ , 100 ppm
107-98-2 1-methoxy-2-propanol	
WEL	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm Sk
108-65-6 2-methoxy-1-methylethyl acetate	
WEL	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk

- **Exposure controls**
- **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.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **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

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- be checked prior to the application.
- **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Liquid
Colour:	According to product specification
Odour:	Characteristic

- **Change in condition**

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	120°C

- **Flash point:** 24°C

- **Ignition temperature:** 270°C

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**

Lower:	1.0 Vol %
Upper:	7.8 Vol %

- **Vapour pressure at 20°C:** 9.5 hPa

- **Density:** Not determined

- **Solubility in / Miscibility with Water:** Fully miscible

- **Solvent content:**

- **Organic solvents:** 50 - 80 %

- **Solids content:** 20 - 50 %

- **Other information**

Xylene Concentraiton (% by Wt.):
 Black - 60.4% / White - 41.9% / Yellow - 42.3% / Blue - 50.8% /
 Green - 48.7% / Light Green - 43.9% / Orange - 48.9% / Red -
 60.7% / Purple - 41.9% / Silver - 78.5% / Pink - 43.3% / Light
 Violet - 41.9% / Gold - 52.2%

10 Stability and reactivity

- **Reactivity**

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:**

- No decomposition if used according to specifications.

- **Possibility of hazardous reactions** No dangerous reactions known

- **Conditions to avoid** No further relevant information available.

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- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values 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 the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
Harmful
Irritant

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Comply with all Federal, State, and Local regulations regarding disposal.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

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14 Transport information

<ul style="list-style-type: none"> · UN-Number · ADR, IMDG, IATA 	1210
<ul style="list-style-type: none"> · UN proper shipping name · ADR · IMDG, IATA 	1210 PRINTING INK (not viscous) PRINTING INK
<ul style="list-style-type: none"> · Transport hazard class(es) · ADR 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids. 3
<ul style="list-style-type: none"> · IMDG, IATA 	
<ul style="list-style-type: none"> · Class · Label 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids. 3
<ul style="list-style-type: none"> · Packing group · ADR, IMDG 	III
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: 	No
<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: 	Warning: Flammable liquids. 30 F-E,S-D
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Tunnel restriction code 	D/E
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN1210, PRINTING INK, 3, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations
- Technical instructions (air):

Class	Share in %
NK	94.1

- Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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.

· **Relevant phrases**

- H225 *Highly flammable liquid and vapour.*
- H226 *Flammable liquid and vapour.*
- H304 *May be fatal if swallowed and enters airways.*
- H312 *Harmful in contact with skin.*
- H315 *Causes skin irritation.*
- H319 *Causes serious eye irritation.*
- H332 *Harmful if inhaled.*
- H350 *May cause cancer.*

- R10 *Flammable.*
- R11 *Highly flammable.*
- R20 *Harmful by inhalation.*
- R20/21 *Harmful by inhalation and in contact with skin.*
- R36 *Irritating to eyes.*
- R38 *Irritating to skin.*
- R65 *Harmful: may cause lung damage if swallowed.*

· **MSDS Created By:** Jacqueline Cullum

· **File:** 37

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

- 02-09-2012 *New SDS format added xylene % by Wt.,SVHC*
- 04-12-2010 *New SDS created for all pigmented xylene based markers combined*

· **Abbreviations and acronyms:**

- ADR: *Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*
- RID: *Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*
- IMDG: *International Maritime Code for Dangerous Goods*
- IATA: *International Air Transport Association*
- ICAO: *International Civil Aviation Organization*
- GHS: *Globally Harmonized System of Classification and Labelling of Chemicals*
- LC50: *Lethal concentration, 50 percent*
- LD50: *Lethal dose, 50 percent*