

## 1 Identification of substance:

- **Product details:**
- **Trade name:** **GS-1 Black Ink**
- **Product number:**  
0510-001  
0510-002  
0510-003  
0510-004  
0510-007  
1301-507
- **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
- **Emergency information:**  
Contact Infotrac: (800) 535 5053 (US only)  
International: +1 352 323 3500

## 2 Composition/Data on components:

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

|          |                                |        |
|----------|--------------------------------|--------|
| 123-42-2 | 4-hydroxy-4-methylpentan-2-one | 60-80% |
|----------|--------------------------------|--------|

## 3 Hazards identification

- **Hazard description:**



Harmful

- **Information pertaining to particular dangers for man and environment:**  
Harmful if swallowed.  
Irritating to eyes.
- **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)**  

|   |   |   |
|---|---|---|
| 1 | 2 | 0 |
|---|---|---|

Health = 1  
Fire = 2  
Reactivity = 0
- **HMIS Rating (scale 0-4)**  

|            |   |                  |
|------------|---|------------------|
| HEALTH     | 1 | Health - 1       |
| FIRE       | 2 | Flammability - 2 |
| REACTIVITY | 0 | Reactivity - 0   |
- **Routes of Entry**  
Ingestion  
Inhalation

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- **Target Organs**
  - Kidneys
  - Lungs
  - Blood
  - Liver
- **Irritancy**
  - Eyes
  - Respiratory Tract
- **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; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** Do not induce vomiting; immediately call for medical help.

## 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:**  
Do not allow product to reach sewage system or any water course.  
Prevent seepage into sewage system, workpits and cellars.  
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, sawdust).  
Dispose contaminated material as waste according to item 13.

## 7 Handling and storage

- **Handling**
- **Information for safe handling:**  
Open and handle receptacle with care.  
Wash hands thoroughly after handling.
- **Information about protection against explosions and fires:** No special measures required.
- **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)

## 8 Exposure controls and personal protection

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

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|   |  |
|---|--|
| · <b>Components with limit values that require monitoring at the workplace:</b> |  |
| <b>123-42-2 4-hydroxy-4-methylpentan-2-one</b>                                  |  |
| ACGIH TLV   | 50 ppm   |
| NIOSH REL   | 240 mg/m <sup>3</sup> , 50 ppm                   |
| OSHA PEL  | 240 mg/m <sup>3</sup> , 50 ppm                   |
| <b>1333-86-4 Carbon black</b>   |  |
| ACGIH TLV   | 3.5 mg/m <sup>3</sup>                            |
|   | A4   |
| NIOSH REL   | 3.5* mg/m <sup>3</sup>                           |
|   | *0.1 in presence of PAHs, as PAHs; 10-hr TWA; Ca |
| OSHA PEL  | 3.5 mg/m <sup>3</sup>                            |

· **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 eyes.

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.

· **Eye protection:**

Tightly sealed goggles.

## 9 Physical and chemical properties:

|  |   |
|--|---|
| · <b>General Information</b>                     |   |
| <b>Form:</b>                                     | Liquid  |
| <b>Color:</b>                                    | Black   |
| <b>Odor:</b>                                     | Characteristic                                |
| · <b>Change in condition</b>                     |   |
| <b>Melting point/Melting range:</b>              | undetermined                                  |
| <b>Boiling point/Boiling range:</b>              | 150°C (302°F)                                 |
| · <b>Flash point:</b>                            | 58°C (136°F)                                  |
| · <b>Ignition temperature:</b>                   | 620.0°C (1148°F)                              |
| · <b>Auto igniting:</b>                          | Product is not selfigniting.                  |
| · <b>Danger of explosion:</b>                    | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                       |   |
| <b>Lower:</b>                                    | 1.4 Vol %                                     |
| <b>Upper:</b>                                    | 8.1 Vol %                                     |
| · <b>Vapor pressure at 20°C (68°F):</b>          | 1.1 hPa (1 mm Hg)                             |
| · <b>Density:</b>                                | Not determined                                |
| · <b>Solubility in / Miscibility with Water:</b> | Not miscible or difficult to mix              |
| · <b>Solvent content:</b>                        |   |
| <b>Organic solvents:</b>                         | 73.7 %  |
| · <b>Solids content:</b>                         | 18.8 %  |

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· VOC's Lbs/Gallon: 6.35

## 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:**

123-42-2 4-hydroxy-4-methylpentan-2-one

Oral LD50 4000 mg/kg (rat)

Dermal LD50 13630 mg/kg (rab)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** 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:

- **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

- **ERG #**

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- **Proper shipping name (technical name):** Printing ink
- **Remarks:** Note: For domestic US GROUND shipments for non-bulk packaging (119 gallons or less), this material may be classified as a 'COMBUSTIBLE' under 49 CFR 173.150(f). Therefore no labels or hazardous materials shipping papers are required for domestic US ground shipments for non-bulk packaging of this product.

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



- **ADR/RID class:** 3 Flammable liquids
- **Item:** 31c
- **Danger code (Kemler):** 30
- **UN-Number:** 1210
- **Description of goods:** 1210 Printing ink

- **Maritime transport IMDG:**



- **IMDG Class:** 3.3
- **Page:** 3377-1
- **UN Number:** 1210
- **Packaging group:** III
- **EMS Number:** F-E,S-E
- **MFAG:** 311
- **Marine pollutant:** No
- **Propper shipping name:** Printing ink

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1210
- **Packaging group:** III
- **Propper shipping name:** Printing ink

## 15 Regulations

- **Carcinogenity categories**

- **EPA (Environmental Protection Agency)**

108-88-3 | toluene

D

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

1333-86-4 | Carbon black

2B

108-88-3 | toluene

3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

1333-86-4 | Carbon black

A4

108-88-3 | toluene

A4

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

1333-86-4 | Carbon black

3

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

1333-86-4 | Carbon black

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

None of the ingredients is listed.

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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:**

4-hydroxy-4-methylpentan-2-one

· **Risk phrases:**

Harmful if swallowed.

Irritating to eyes.

· **Safety phrases:**

Keep out of the reach of children.

Keep away from food, drink and animal feedingstuffs.

Avoid contact with eyes.

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

· **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

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

This product does not contain chemicals listed as toxic chemicals at levels which require reporting under SARA Title III Section 313.

· **CONEG:**

This product has been tested for heavy metals covered under the various CONEG laws, and does not contain mercury, lead, cadmium, or hexavalent chromium at levels above reportable thresholds:

Mercury (Hg), total: <0.03mg/kg

Lead (Pb), total: <7.7mg/kg

Cadmium (Cd), total: <1.5mg/kg

Chromium (Cr), total: <4.6mg/kg

· **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):**

This product contains no ingredients on the California Proposition 65 List known to cause cancer.

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

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.

· **Department issuing MSDS:** Safety / Environmental

· **MSDS Created By:** Peter Gimse

· **File:** 110

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

This Revision: 3/14/2005 Corrected HMIS data.

Previous Revs: 02/25/2002 Updated Company Info.

Previous Revs: 04/19/2001 Section 3: Updated HMIS/NFPA info. Section 9: Added VOC information.

8/11/2000 Section 1: Updated Product Numbers. Section 7: Added Storage Temp. Section 14: Added ERG Corrected IMDG page number.

09/16/1999 Initial release with new format.