

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/28/2010

Reviewed on 07/28/2010



## 1 Identification of substance

- **Product details**
- **Trade name:** PR-BK1 Polyrolmark Black Ink
- **Article number:** 20958
- **Application of the substance / the preparation** Printing inks
- **Manufacturer/Supplier:**  
Marsh Shipping Supply Co.,LLC  
926 McDonough Lake Road - Unit E  
Collinsville, IL 62234  
USA
- **Information department:** customerservice@msscllc.com
- **Emergency information:**  
Chemtrec 800-424-9300  
International 703-527-3887

## 2 Composition/Data on components

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

### · Hazardous components

123-42-2	4-hydroxy-4-methylpentan-2-one	76.86%
	 Xi; R 36	
	Warning:  3.3/2A	
1333-86-4	Carbon black	8.74%
	Modified Rosin Ester NJ TSRN 80100080-5097P	7.72%
	EINECS polymer exempt - all components listed	
112945-52-5	Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free	2.33%
	acrylic copolymer -EU Polymer exempted- Not Regulated	4.35%

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

## 3 Hazards identification

### · Hazard description:



Xi Irritant

### · Information pertaining to particular dangers for man and environment:

The product has to be labelled due to the calculation procedure of international guidelines.

R 36 Irritating to eyes.

### · Potential Chronic Health Effects

Prolonged or repeated exposure of vapors, spray, or material may cause diseases of the lungs. Reports have associated repeated overexposure to solvents with brain and nervous system damage. Intentional misuse of this product may be harmful or fatal.

### · Target Organs

Overexposure to this material or its components has been suggested as a cause of the following effects in laboratory animals and/or humans, and may aggravate preexisting disorders of these organs in humans: Anemia, Blood disorders, Brain damage, Cardiac function, eye, liver, lung, menstrual and fertility, skin, respiratory, Central Nervous System

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· **Classification system:**

The classification was made according to the latest editions of international substances lists and from component data and msds information

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **GHS label elements**



2.6/3 - Flammable liquid and vapour.



3.3/2A - Causes serious eye irritation.

· **Prevention:**

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

Use explosion-proof electrical/ventilating/lighting/equipment.

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

· **Response:**

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

· **Disposal:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

## 4 First aid measures

· **General information:**

Take affected persons out into the fresh air.

Involve doctor immediately.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water for 15 minutes. If irritation exists call physician.

· **After eye contact:**

Rinse opened eye for fifteen minutes under running water. If irritation persists, consult a doctor.

· **After swallowing:** Do not induce vomiting; immediately call for medical help.

· **Information for doctor:**

· **The following symptoms may occur:**

Breathing difficulty

Headache

Thirst

Cramp

Gastric or intestinal disorders

Coughing

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Allergic reactions  
Nausea

## 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.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide (CO)
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

## 6 Accidental release measures

- **Person-related safety precautions:**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Wear protective clothing.
- **Measures for environmental protection:**  
Do not allow product to reach sewage system or any water course.  
Do not allow to enter sewers/ surface or ground water.  
Prevent from spreading (e.g. by damming-in or oil barriers).
- **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.  
Ensure adequate ventilation.  
Dispose of the collected material according to regulations.
- **Additional information:**  
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:**
- **Information for safe handling:**  
Store in cool, dry place in tightly closed receptacles.  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.  
Handle with care. Avoid jolting, friction and impact.  
Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing or moving, observe grounding/grounding of containers and other equipment when handling.
- **Information about protection against explosions and fires:** Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.

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· **Information about storage in one common storage facility:**

Do not store together with oxidizing and acidic materials as well as heavy-metal compounds.  
Store away from foodstuffs.

· **Further information about storage conditions:**

Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from humidity and water.  
Protect from exposure to the light.

## 8 Exposure controls and personal protection

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

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

PEL 240 mg/m<sup>3</sup>, 50 ppm

REL 240 mg/m<sup>3</sup>, 50 ppm

TLV 238 mg/m<sup>3</sup>, 50 ppm

**1333-86-4 Carbon black**

PEL 3.5 mg/m<sup>3</sup>

REL 3.5\* mg/m<sup>3</sup>

\*0.1 in presence of PAHs, as PAHs; 10-hr TWA

TLV 3.5 mg/m<sup>3</sup>

**Modified Rosin Ester NJ TSRN 80100080-5097P**

**EINECS polymer exempt - all components listed**

PEL 5\*15\*\* mg/m<sup>3</sup>, 15\*50\*\* ppm

\*Respirable Fraction, \*\*Total Dust

**112945-52-5 Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free**

TLV 3.5 mg/m<sup>3</sup>

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Pregnant women should strictly avoid inhalation or skin contact.

Do not eat, drink, smoke or sniff while working.

· **Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation.

Do not breath vapors, spray mists, or sanding dusts. Use air purifying respirators fitted with organic vapor/HEPA cartridges only if air monitoring demonstrates solvent/particulate levels do not exceed the respirator maximum use concentration. Use properly fitted NIOSH approved respirators. Local and general exhaust should minimize any exposure.

· **Protection of hands:**



Protective gloves

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- **Material of gloves**

Nitrile rubber, NBR

Nitrile or natural rubber gloves are typically used to protect from minor contact. Butyl type are best for prolonged contact.

- **Eye protection:**



Vapor proof safety goggles or full face respirator

- **Body protection:**

Solvent resistant protective clothing

Impervious protective clothing

Tyvek(R) coveralls to protect from light overspray protection or Saranex 23-P(R) for moderate exposure.

## 9 Physical and chemical properties

- **General Information**

**Form:** Fluid  
**Color:** Black  
**Odor:** Alcohol-like

- **Change in condition**

**Melting point/Melting range:** Undetermined.**Boiling point/Boiling range:** 150°C (302°F)

- **Flash point:** 58°C (136°F)

- **Ignition temperature:** 620.0°C (1148°F)

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

- **Danger of explosion:** In use, may form flammable/explosive vapour-air mixture.

- **Explosion limits:**

**Lower:** 1.4 Vol %**Upper:** 8.1 Vol %

- **Vapor pressure at 20°C (68°F):** 1.1 hPa (1 mm Hg)

- **Density at 20°C (68°F):** 1.004 g/cm<sup>3</sup>

- **Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

- **Solvent content:**

**Organic solvents:** 76.9 %**VOC content:** 771 g/l**Solids content:** 23.1 %

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Materials to be avoided:**

- **Dangerous reactions** Reacts with acids, alkalis and oxidizing agents.

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- **Dangerous products of decomposition:**  
Nitrogen oxides  
Carbon monoxide and carbon dioxide

## 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:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.

- **Sensitization:**

Sensitizing effect through inhalation is possible with prolonged exposure.  
Sensitizing effect by skin contact is possible with prolonged exposure.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant  
Danger through skin absorption.

## 12 Ecological information

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water  
This statement was deduced from the properties of the single components.

## 13 Disposal considerations

- **Product:**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Hand over to hazardous waste disposers.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

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## 14 Transport information

### · DOT regulations:



· **Hazard class:** Ink, not regulated by Title 49 Part 173.150 Exceptions for Class 3 (flammable) and combustible liquids,(f)(1)

### · 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  
 · **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

· **UN "Model Regulation":** UN1210, PRINTING INK, 3, III

## 15 Regulations

### · TSCA (Toxic Substances Control Act):

All ingredients are listed or exempt.

123-42-2	4-hydroxy-4-methylpentan-2-one
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1333-86-4	Carbon black
	Modified Rosin Ester NJ TSN 80100080-5097P EINECS polymer exempt - all components listed
	acrylic copolymer -EU Polymer exempted- Not Regulated
112945-52-5	Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free

· **Cancerogenity categories**· **IARC (International Agency for Research on Cancer)**

1333-86-4	Carbon black	2B	8,74%
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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

1333-86-4	Carbon black	A4	8,74%
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· **NIOSH (National Institute for Occupational Safety and Health)**

123-42-2	4-hydroxy-4-methylpentan-2-one	Guidelines 89-104	76,86%
1333-86-4	Carbon black	Std 78-204, Guidelines 88-118	8,74%

· **State regulations**· **New Jersey Right-to-know**

Modified Rosin Ester NJ TSN 80100080-5097P EINECS polymer exempt - all components listed	TSRN 80100080-5097P	7,72%
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· **Massachusetts Right-to-know / Hazardous Substance Codes**

123-42-2	4-hydroxy-4-methylpentan-2-one	2,4	76,86%
1333-86-4	Carbon black	2,4 F5	8,74%

· **Florida Hazardous / Toxic Substance Lists**

123-42-2	4-hydroxy-4-methylpentan-2-one	Toxic	76,86%
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· **Pennsylvania Hazardous Substances**

123-42-2	4-hydroxy-4-methylpentan-2-one	--	76,86%
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· **Minnesota Right To Know / Hazardous Substances**

123-42-2	4-hydroxy-4-methylpentan-2-one	ANO	76,86%
1333-86-4	Carbon black	Codes: ANOR, Carcinogen	8,74%

· **Product related hazard informations:**

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

· **Hazard symbols:**

Xi Irritant

· **Risk phrases:**

36 Irritating to eyes.

· **Safety phrases:**

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

24/25 Avoid contact with skin and eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

33 Take precautionary measures against static discharges.

51 Use only in well-ventilated areas.

60 This material and its container must be disposed of as hazardous waste.

· **National regulations:**· **Occupational Safety and Health Act (OSHA)**

Immediate (acute) health hazard

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*Delayed (chronic) Health Hazard*  
*Fire Hazard*

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

## 16 Other information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

· **Relevant R-phrases**

36 Irritating to eyes.

· **Contact:** Mike Rickert

· **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

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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