

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/20/2011

Reviewed on 06/20/2011



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

- **Product identifier**
- **Trade name:** R-BK1 Rolmark Black Stencil Ink
- **Article number:** 20887,20903,5A132,20928,20929,33564,4HY29
- **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:**  
Marsh Shipping Supply Co.,LLC  
926 McDonough Lake Road - Unit E  
Collinsville, IL 62234  
USA
- **Information department:** customerservice@mssllc.com
- **Emergency telephone number:**  
Chemtrec 800-424-9300  
International 703-527-3887

## 2 Composition/information on ingredients

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

- **Hazardous components**

123-42-2	4-hydroxy-4-methylpentan-2-one	 Xi R36  H319	81.8%
	Modified Rosin Resin	R18	5.8%
1333-86-4	Carbon black		5.6%
112945-52-5	Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free		2.8%

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

## 3 Hazards identification

- **Classification of the substance or mixture**



GHS02 Flame

H226 Flammable liquid and vapour.



GHS07

H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36: Irritating to eyes.

- **Information concerning particular hazards for human and environment:**

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

- **Classification system:**

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

(Contd. on page 2)

USA

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/20/2011

Reviewed on 06/20/2011

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 1)

- **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:**

*Xi Irritant*

- **Risk phrases:**

36 Irritating to eyes.

- **Safety phrases:**

16 Keep away from sources of ignition - No smoking.

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

25 Avoid contact with 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.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

38 In case of insufficient ventilation, wear suitable respiratory equipment.

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

- **Information pertaining to particular dangers for man and environment:**

- **Inhalation**

Can cause nasal and respiratory tract irritation. Can cause Central Nervous System effects including fatigue, dizziness, nausea, vomiting, unconsciousness, respiratory failure, headache, possible hearing impairment.

- **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

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 2

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 2

Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

## 4 First aid measures

- **Description of first aid measures**

- **General information:**

Take affected persons out into the fresh air.

(Contd. on page 3)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/20/2011

Reviewed on 06/20/2011

**Trade name: R-BK1 Rolmark Black Stencil Ink**

(Contd. of page 2)

- 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:**
- **Most important symptoms and effects, both acute and delayed**
  - Breathing difficulty
  - Headache
  - Dizziness
  - Thirst
  - Cramp
  - Gastric or intestinal disorders
  - Coughing
  - Allergic reactions
  - Nausea

## 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*
- **Special hazards arising from the substance or mixture**
  - Nitrogen oxides (NO<sub>x</sub>)
  - Carbon monoxide (CO)
- **Advice for firefighters**
- **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

- **Personal precautions, protective equipment and emergency procedures**  
*Wear protective equipment. Keep unprotected persons away.*  
*Particular danger of slipping on leaked/spilled product.*  
*Keep away from ignition sources*  
*Ensure adequate ventilation*
- **Environmental precautions:**  
*Do not allow product to reach sewage system or any water course.*  
*Prevent from spreading (e.g. by damming-in or oil barriers).*  
*Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**  
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).*  
*Ensure adequate ventilation.*  
*Dispose contaminated material as waste according to item 13.*  
*Dispose of the collected material according to regulations.*

(Contd. on page 4)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/20/2011

Reviewed on 06/20/2011

**Trade name: R-BK1 Rolmark Black Stencil Ink**

(Contd. of page 3)

- **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.
- Store in cool, dry place in tightly closed receptacles.
- Keep away from heat and direct sunlight.
- Open and handle receptacle with care.
- Handle with care. Avoid jolting, friction and impact.
- Use solvent-proof equipment.
- Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
- Keep ignition sources away - Do not smoke.
- Protect from heat.
- Protect against electrostatic charges.
- Use explosion-proof apparatus / fittings and spark-proof tools.
- Fumes can combine with air to form an explosive mixture.
- Flammable gas-air mixtures may be formed in empty receptacles.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
- Store only in the original receptacle.
- Prevent any seepage into the ground.
- **Information about storage in one common storage facility:**
- Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.
- Store away from foodstuffs.
- **Further information about storage conditions:**
- Keep receptacle tightly sealed.
- Store in cool, dry conditions in well sealed receptacles.
- Protect from heat and direct sunlight.
- Protect from humidity and water.
- Protect from exposure to the light.

## 8 Exposure controls/personal protection

- **Control parameters**
- **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

### 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

(Contd. on page 5)

USA

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/20/2011

Reviewed on 06/20/2011

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 4)

**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>

**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.

· **Exposure controls**

· **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.

Avoid contact with the eyes and skin.

Pregnant women should strictly avoid inhalation or skin contact.

Do not inhale gases / fumes / aerosols.

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

· **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

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

**Form:** Fluid

**Color:** Black

(Contd. on page 6)

-USA

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/20/2011

Reviewed on 06/20/2011

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 5)

· <b>Odor:</b>	Alcohol-like
· <b>Change in condition</b> <b>Boiling point/Boiling range:</b>	150°C (302°F)
· <b>Flash point:</b>	58°C (136°F)
· <b>Ignition temperature:</b>	620°C (1148°F)
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	In use, may form flammable/explosive vapour-air mixture.
· <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 at 20°C (68°F):</b>	0.9899 g/cm <sup>3</sup> (8.261 lbs/gal)
· <b>Solubility in / Miscibility with</b> <b>Water:</b>	Not miscible or difficult to mix.
· <b>Viscosity:</b> <b>Dynamic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	81.8 %
<b>VOC content:</b>	81.8 %
	809.7 g/l / 6.76 lb/gl
· <b>Solids content:</b>	18.2 %

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Reacts with acids, alkalis and oxidizing agents.
- **Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Nitrogen oxides

## 11 Toxicological information

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

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>123-42-2 4-hydroxy-4-methylpentan-2-one</b>		
Oral	LD50	4000 mg/kg (rat)
Dermal	LD50	13630 mg/kg (rab)
<b>1333-86-4 Carbon black</b>		
Oral	LD50	10000 mg/kg (rat)

(Contd. on page 7)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/20/2011

Reviewed on 06/20/2011

**Trade name: R-BK1 Rolmark Black Stencil Ink**

(Contd. of page 6)

### 25265-71-8 oxydipropanol

Dermal LD50 > 14.800 mg/kg (rat)

### Modified Rosin Resin NJ TSRN-6790

Dermal LD50 > 5 mg/kg (rabbit)

- **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  
Harmful  
Danger through skin absorption.

## 12 Ecological information

- **Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
This statement was deduced from the properties of the single components.  
Water hazard class 1 (Self-assessment): slightly hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## 13 Disposal considerations

- **Waste treatment methods**
- **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.

USA

(Contd. on page 8)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/20/2011

Reviewed on 06/20/2011

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 7)

## 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  
 · **UN proper shipping name:** 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  
 · **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  
 · **Special precautions for user** Warning: Flammable liquids

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
 · **TSCA (Toxic Substances Control Act):**  
 All ingredients are listed or exempt.

(Contd. on page 9)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/20/2011

Reviewed on 06/20/2011

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 8)

123-42-2	4-hydroxy-4-methylpentan-2-one
1333-86-4	Carbon black
	acrylic copolymer -EU Polymer exempted- Not Regulated
112945-52-5	Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free

· **Carcinogenity categories**

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

1333-86-4	Carbon black	2B	5.6%
-----------	--------------	----	------

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

1333-86-4	Carbon black	A4	5.6%
-----------	--------------	----	------

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

123-42-2	4-hydroxy-4-methylpentan-2-one	Guidelines 89-104	81.8%
1333-86-4	Carbon black	*	5.6%

· **State regulations**

· **Massachusetts Right-to-know / Hazardous Substance Codes**

123-42-2	4-hydroxy-4-methylpentan-2-one	2,4	81.8%
1333-86-4	Carbon black	2,4 F5	5.6%

· **Florida Hazardous / Toxic Substance Lists**

123-42-2	4-hydroxy-4-methylpentan-2-one	Toxic	81.8%
----------	--------------------------------	-------	-------

· **Pennsylvania Hazardous Substances**

123-42-2	4-hydroxy-4-methylpentan-2-one	--	81.8%
----------	--------------------------------	----	-------

· **Minnesota Right To Know / Hazardous Substances**

123-42-2	4-hydroxy-4-methylpentan-2-one	ANO	81.8%
1333-86-4	Carbon black	Codes: ANOR, Carcinogen	5.6%

· **Illinois Right To Know**

None of the ingredients is listed.

· **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:**

- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
- 25 Avoid contact with 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.
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- 38 In case of insufficient ventilation, wear suitable respiratory equipment.
- 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

(Contd. on page 10)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/20/2011

Reviewed on 06/20/2011

**Trade name: R-BK1 Rolmark Black Stencil Ink**

(Contd. of page 9)

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

- **Water hazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.*
- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

## 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 phrases**

*H319 Causes serious eye irritation.*

*R18 In use, may form flammable/explosive vapour-air mixture.*

*R36 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)*

*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*

USA