

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/24/2008

Reviewed on 07/24/2008






1 Identification of substance

- **Product details**
- **Trade name:** R-BKI Rolmark Black Stencil Ink
- **Article number:** 20887,20903,5A132,20928,20929,33564,4HY29
- **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:**
MSDS DEPT.
customerservice@mssllc.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  Xi; R 36 Warning:  2.6/3;  3.3/2A	77.26%
	Modified Rosin Ester NJ TSRN 80100080-5097P EINECS polymer exempt - all components listed	7.98%
1333-86-4	Carbon black	5.61%
25265-71-8	oxydipropanol  Xi; R 36/37/38 Warning:  3.2/2, 3.3/2A, 3.8/3	4.48%
112945-52-5	Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free	2.8%
	acrylic copolymer -EU Polymer exempted- Not Regulated	1.87%

- **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.
- **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.

(Contd. on page 2)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/24/2008

Reviewed on 07/24/2008

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

(Contd. of page 1)

· **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:**

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.

Keep container tightly closed.

Ground/bond container and receiving equipment.

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

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

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.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

· **Storage:**

Store in a well-ventilated place. Keep cool.

(Contd. on page 3)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/24/2008

Reviewed on 07/24/2008

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 2)

- **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
Dizziness
Thirst
Cramp
Gastric or intestinal disorders
Coughing
Allergic reactions
Nausea

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
ABC powder
- **Special hazards caused by the material, its products of combustion or resulting gases:**
Nitrogen oxides (NO_x)
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.
Particular danger of slipping on leaked/spilled product.
Keep away from ignition sources
Ensure adequate ventilation
- **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).

(Contd. on page 4)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/24/2008

Reviewed on 07/24/2008

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 3)

· **Measures for cleaning/collecting:**

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.

· **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:**

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.

· **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 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/m³, 50 ppm

REL 240 mg/m³, 50 ppm

TLV 238 mg/m³, 50 ppm

(Contd. on page 5)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/24/2008

Reviewed on 07/24/2008

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 4)

Modified Rosin Ester NJ TSRN 80100080-5097P
EINECS polymer exempt - all components listed

PEL 5*15** mg/m³, 15*50** ppm
 *Respirable Fraction, **Total Dust

1333-86-4 Carbon black

PEL 3.5 mg/m³
 REL 3.5* mg/m³
 *0.1 in presence of PAHs, as PAHs; 10-hr TWA
 TLV 3.5 mg/m³

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

TLV 3.5 mg/m³

· **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.

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

USA

(Contd. on page 6)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/24/2008

Reviewed on 07/24/2008

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 5)

9 Physical and chemical properties

· General Information

Form:	Fluid
Color:	Black
Odor:	Alcohol-like

· Change in condition

Boiling point/Boiling range: 150°C (302°F)

· **Flash point:** 58°C (136°F)

· **Ignition temperature:** 620°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):** 0.9913 g/cm³

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Solvent content:

Organic solvents:	81.7 %
VOC content:	81.7 %

· **Solids content:** 18.3 %

10 Stability and reactivity

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

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

· **Dangerous products of decomposition:**

Carbon monoxide and carbon dioxide

Nitrogen oxides

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)
--------	------	-------------------

1333-86-4 Carbon black

Oral	LD50	10000 mg/kg (rat)
------	------	-------------------

25265-71-8 oxydipropanol

Dermal	LD50	> 14.800 mg/kg (rat)
--------	------	----------------------

(Contd. on page 7)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/24/2008

Reviewed on 07/24/2008

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 6)

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

- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
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.

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

(Contd. on page 8)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/24/2008

Reviewed on 07/24/2008

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 7)

- **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
- **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
	Modified Rosin Ester NJ TSRN 80100080-5097P EINECS polymer exempt - all components listed
1333-86-4	Carbon black
25265-71-8	oxydipropanol
112945-52-5	Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free
	acrylic copolymer -EU Polymer exempted- Not Regulated

· **Carcinogeny categories**

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

1333-86-4	Carbon black	2B	5,61%
-----------	--------------	----	-------

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

1333-86-4	Carbon black	A4	5,61%
-----------	--------------	----	-------

(Contd. on page 9)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/24/2008

Reviewed on 07/24/2008

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

(Contd. of page 8)

· NIOSH (National Institute for Occupational Safety and Health)			
123-42-2	4-hydroxy-4-methylpentan-2-one	Guidelines 89-104	77,26%
1333-86-4	Carbon black	Std 78-204, Guidelines 88-118	5,61%
· State regulations			
· New Jersey Right-to-know			
Modified Rosin Ester NJ TSRN 80100080-5097P EINECS polymer exempt - all components listed		TSRN 80100080-5097P	7,98%
· Massachussetts Right-to-know / Hazardous Substance Codes			
123-42-2	4-hydroxy-4-methylpentan-2-one	2,4	77,26%
1333-86-4	Carbon black	2,4 F5	5,61%
· Florida Hazardous / Toxic Substance Lists			
123-42-2	4-hydroxy-4-methylpentan-2-one	Toxic	77,26%
· Pennsylvania Hazardous Substances			
123-42-2	4-hydroxy-4-methylpentan-2-one	--	77,26%
25265-71-8	oxydipropanol	Listed	4,48%
· Minnesota Right To Know / Hazardous Substances			
123-42-2	4-hydroxy-4-methylpentan-2-one	ANO	77,26%
1333-86-4	Carbon black	Codes: ANOR, Carcinogen	5,61%

· **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
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

(Contd. on page 10)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 07/24/2008

Reviewed on 07/24/2008

Trade name: R-BK1 Rolmark Black Stencil Ink

(Contd. of page 9)

described herein, we cannot guarantee that these are the only hazards that exist.

· Relevant R-phrases

36 Irritating to eyes.

36/37/38 Irritating to eyes, respiratory system and skin.

· 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: Reglement internationale concernent 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

USA