Printing date 05/17/2013 Reviewed on 05/17/2013

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

- · Product identifier
- · Trade name: Rolmark Red Stencil Ink
- · Article number: 20891, 20909, 1F152, 33566
- · Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

- · 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@msscllc.com
- · Emergency telephone number: Infotrac: USA 1 800 535 5053

International 352-323-3500 Call Collect

2 Hazards identification

· Classification of the substance or mixture



GHS02 Flame

Flammable liquid and vapour.



Causes serious eye irritation.

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

NOTICE-For professional users only! This material is intended for use by trained professional applicators, only after carefully examining this MSDS and evaluating safety precautions associated with the use of this material.



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

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

(Contd. on page 2)

Printing date 05/17/2013 Reviewed on 05/17/2013

Trade name: Rolmark Red Stencil Ink

(Contd. of page 1)

- 25 Avoid contact with eyes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 36/39 Wear suitable protective clothing and eye/face protection.
- Use only in well-ventilated areas.
- 60 This material and its container must be disposed of as hazardous waste.
- · Information pertaining to particular dangers for man and environment:
- · 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 = 1Fire = 2Reactivity = 0

· HMIS-ratings (scale 0 - 4)



*2 *Health* = *2 Fire = 2

- · 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 the substances listed below with nonhazardous additions.

· Hazardous co	omponents	_
123-42-2	4-hydroxy-4-methylpentan-2-one Xi R36 ♠ H226; ↑ H319	74.33%
2425-85-6	1-(4-methyl-2-nitrophenylazo)-2-naphthol	9.4%
37244-96-5	Nepheline Syenite	5.0%
	Polymer of modified Rosin Resin R18	2.0%
112945-52-5	Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free	0.74%
5468-75-7	Yellow AAOT Pigment 14	0.57%

Printing date 05/17/2013 Reviewed on 05/17/2013

Trade name: Rolmark Red Stencil Ink

(Contd. of page 2)

4 First aid measures

- · Description of 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:
- · Most important symptoms and effects, both acute and delayed

Breathing difficulty

Headache

Dizziness

Thirst

Cramp

Gastric or intestinal disorders

Coughing

Allergic reactions

Nausea

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Firefighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, 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 (NOx)

Carbon monoxide (CO)

- · Advice for firefighters
- · Protective equipment:

Wear self-contained respiatory 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.

Ensure adequate ventilation

Wear protective clothing.

· Environmental precautions:

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)

Printing date 05/17/2013 Reviewed on 05/17/2013

Trade name: Rolmark Red Stencil Ink

(Contd. of page 3)

· 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 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

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 handeling.

- · Information about protection against explosions and fires: No special measures required.
- · 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 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.

· Specific end use(s) No further relevant information available.

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/m³, 50 ppm

REL 240 mg/m³, 50 ppm

TLV 238 mg/m^3 , 50 ppm

2425-85-6 1-(4-methyl-2-nitrophenylazo)-2-naphthol

TLV 10 (nuisance dust) mg/m³

37244-96-5 Nepheline Syenite

PEL $5*,10**mg/m^3$

*resipirable fraction, **inhalable fraction

(Contd. on page 5)

Printing date 05/17/2013 Reviewed on 05/17/2013

Trade name: Rolmark Red Stencil Ink

(Contd. of page 4)

Polymer of modified Rosin Resin

PEL $15*5**mg/m^3$

*Total Dust **Respirable Fraction

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

TLV 3.5 mg/m^3

5468-75-7 Yellow AAOT Pigment 14

TLV Short-term value: 10 as nuisance mg/m³

- · 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.

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.

Use only with adequate ventillatiion.

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

Nitrile rubber, NBR

· 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.

USA

Printing date 05/17/2013 Reviewed on 05/17/2013

Trade name: Rolmark Red Stencil Ink

(Contd. of page 5)

Information on basis physical and s	phomical proporties			
Information on basic physical and chemical properties General Information				
Appearance:				
Form:	Fluid			
Color:	Red			
Odor:	Alcohol-like			
Odour threshold:	Not determined.			
pH-value:	Not determined.			
Change in condition				
Melting point/Melting range:	Undetermined.			
Boiling point/Boiling range:	150 °C (302 °F)			
Flash point:	58 °C (136 °F)			
Flammability (solid, gaseous):	Not applicable.			
Ignition temperature:	620 °C (1148 °F)			
Decomposition temperature:	Not determined.			
Auto igniting:	Product is not selfigniting.			
Danger of explosion:	Not determined.			
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):	$1.01764 \ g/cm^3 (8.492 \ lbs/gal)$			
Relative density	Not determined.			
Vapour density	Not determined.			
Evaporation rate	Not determined.			
Solubility in / Miscibility with				
Water:	Not miscible or difficult to mix.			
Partition coefficient (n-octanol/wate	e r): Not determined.			
Viscosity:				
Dynamic:	Not determined.			
Kinematic:	Not determined.			
Solvent content:				
Organic solvents:	74.3 %			
VOC content:	74.3 %			
	756.4 g/l / 6.31 lb/gl			
Solids content:	25.7 %			
Other information	No further relevant information available.			

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

(Contd. on page 7)

Printing date 05/17/2013 Reviewed on 05/17/2013

Trade name: Rolmark Red Stencil Ink

(Contd. of page 6)

- · Possibility of hazardous reactions Reacts with acids, alkalis and oxidizing agents.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products:

Nitrogen oxides

Carbon monoxide and carbon dioxide

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

	· LD/LC5	0 valu	es that are relevant for classification:
	123-42-	2 4-h ya	droxy-4-methylpentan-2-one
	Oral	LD50	4000 mg/kg (rat)
	Dermal	LD50	13630 mg/kg (rab)
- [2 42 5 0 5	11/	

2425-85-6 1-(4-methyl-2-nitrophenylazo)-2-naphthol

Oral | *LD50* | >5000 mg/kg (rat)

- · 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.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

2425-85-6 1-(4-methyl-2-nitrophenylazo)-2-naphthol

3 9,4%

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior 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 1 (Self-assessment): slightly hazardous for water This statement was deduced from the properties of the single components.

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

(Contd. on page 8)

Printing date 05/17/2013 Reviewed on 05/17/2013

Trade name: Rolmark Red Stencil Ink

· Other adverse effects No further relevant information available.

(Contd. of page 7)

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.

11	m			- 1	•	r			
14	y i	ran:	spc	ort	นกเ	orn	nai	101	1

· UN-Number		UN	$-N\iota$	ımher
-------------	--	----	-----------	-------

· DOT, ADR, IMDG, IATA UN1210

· UN proper shipping name

· **DOT, IMDG, IATA** PRINTING INK · **ADR** 1210 PRINTING INK

- · Transport hazard class(es)
- $\cdot DOT$



· Class 3 Flammable liquids.

Ink, not regulated by Title 49 Part 173.150 Exceptions for Class 3

(flammable) and $combustible\ liquids, (f)(1)$

· Label

· ADR, IMDG, IATA



· Class 3 Flammable liquids

· Label

· Packing group

· DOT, ADR, IMDG, IATA III

• Environmental hazards: Not applicable.

· Special precautions for user Warning: Flammable liquids

· Danger code (Kemler): 30 · EMS Number: F-E,S-D

· Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

(Contd. on page 9)

Printing date 05/17/2013 Reviewed on 05/17/2013

Trade name: Rolmark Red Stencil Ink

(Contd. of page 8)

· UN "Model Regulation":

UN1210, PRINTING INK, 3, III

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.

entan-2-one
enylazo)-2-naphthol
U Polymer exempted- Not Regulated
lica, Silicon Dioxide, Crystalline Free
t 14
l

· Cancerogenity categories

· NIOSH (National Institute for Occupational Safety and Health)

123-42-2 4-hydroxy-4-methylpentan-2-one Guidelines 89-104 74,33%

· State regulations

· Massachussetts Right-to-know / Hazardous Substance Codes

123-42-2 4-hydroxy-4-methylpentan-2-one	2,4	74,33%
---	-----	--------

· Florida Hazardous / Toxic Substance Lists

123-42-2	4-hydroxy-4-methylpentan-2-one	Toxic	74,33%

· Pennsylvania Hazardous Substances

123-42-2 4-hydroxy-4-methylpentan-2-one	 74,33%

· Minnesota Right To Know / Hazardous Substances

123-42-2 4-hydroxy-4-methylpentan-2-one	ANO	74,33%

· 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:

- 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.

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

- 51 Use only in well-ventilated areas.
- 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

(Contd. on page 10)

Printing date 05/17/2013 Reviewed on 05/17/2013

Trade name: Rolmark Red Stencil Ink

(Contd. of page 9)

- · 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

H226 Flammable liquid and vapour.

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:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

 ${\it IATA: International Air Transport Association}$

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

ΙΙSΔ