Printing date 06/17/2015 Reviewed on 06/17/2015

1 Identification

· Product identifier

· Trade name: K-BK1 - "K Series" Black Stencil Ink

· Article number: K-BK-G50, K-BK-G, K-BK-Q, 5A136

· Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Application of the substance / the mixture 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: 1-800-535-5053

International; 352-323-3500 (CALL COLLECT)

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

H351 Suspected of causing cancer.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

· Additional information:

The pigment Carbon Black CAS# 1333-86-4, is suspected of causing cancer when inhaled as a dust form. This pigment is bound in the ink, and under normal conditions of use the exposure to the dust form is not likely.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms GHS08
- · Signal word Danger
- · Hazard-determining components of labeling:

Distillates (petroleum), hydrotreated light

Carbon black

· Hazard statements

Suspected of causing cancer.

May be fatal if swallowed and enters airways.

· Precautionary statements

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

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

If swallowed: Immediately call a poison center/doctor.

IF exposed or concerned: Get medical advice/attention.

Do NOT induce vomiting.

Store locked up.

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

· Information pertaining to particular dangers for man and environment:

· 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,

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Central Nervous System

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 1 Fire = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- · 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 (| Hazardous components | | |
|---------------|-----------------------------------------------|----------------------------|--------|
| 64742-47-8 | Distillates (petroleum), hydrotreated light | ♦ Asp. Tox. 1, H304 | 78.25% |
| | glycerol ester of partially polymerized rosin | | 12.49% |
| 1333-86-4 | Carbon black | 🕸 Carc. 2, H351 | 8.63% |

· Additional information:

This prodct contains pigments which may become a dust nuisance when removed by abrasive blasting or sanding. Airborne nuisance particulates have an ACGIH TLV for total dust of 10mg/M3

4 First-aid measures

- · Description of first aid measures
- · General information:

Seek immediate medical advice.

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:

If symptoms persist consult doctor.

Do not induce vomiting; immediately call for medical help.

· Most important symptoms and effects, both acute and delayed

Breathing difficulty

Headache

Dizziness

Thirst

Cramp

Gastric or intestinal disorders

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Coughing

Allergic reactions

Nausea

· Information for doctor:

This material is an aspiration hazard. Potential danger from aspiration must be weighed against oral toxicity when deciding to induce vomiting. Symptoms of chemical pneumonitis may not be manifest until hours or even days after overexposure.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting 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 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.

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).

· 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

- · Precautions for safe handling Prevent formation of aerosols.
- · Information about protection against explosions and fires: No special measures required.

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(Contd. of page 3)

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
- · 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: Store in cool, dry conditions in well sealed receptacles.
- · 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:

glycerol ester of partially polymerized rosin

TLV Short-term value: 3 (rf) 10 (total) mg/m³

1333-86-4 Carbon black

PEL Long-term value: 3.5 mg/m³

REL Long-term value: 3.5* mg/m³

*0.1 in presence of PAHs;See Pocket Guide Apps.A+C

TLV Long-term value: 3* mg/m³

*inhalable fraction

- · 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.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

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.

· 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.

· Eye protection: Goggles recommended during refilling.

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Safety Data Sheet acc. to OSHA HCS

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

| Physical and chemical proper | |
|---------------------------------------|-----------------------------------------------|
| Information on basic physical and c | chemical properties |
| General Information | |
| Appearance: | Fluid |
| Form: | |
| Color: | Black |
| Odor: | Characteristic Not determined. |
| Odour threshold: | |
| pH-value: | Not determined. |
| Change in condition | |
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | 175 °C (347 °F) |
| Flash point: | 94 °C (201 °F) |
| Flammability (solid, gaseous): | Not applicable. |
| Ignition temperature: | 210 °C (410 °F) |
| Decomposition temperature: | Not determined. |
| Auto igniting: | Product is not selfigniting. |
| Danger of explosion: | Product does not present an explosion hazard. |
| Explosion limits: | |
| Lower: | 0.5 Vol % |
| Upper: | 6.5 Vol % |
| Vapor pressure at 20 °C (68 °F): | 2 hPa (2 mm Hg) |
| Density at 20 °C (68 °F): | 0.83555 g/cm³ (6.973 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: | 78.3 % |
| VOC content: | 78.3 % |
| | 653.8 g/l / 5.46 lb/gl |
| Solids content: | 21.8 % |
| Other information | No further relevant information available. |

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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.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products:

Aldehyde

Hydrocarbons

Carbon monoxide and carbon dioxide

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

| · LD/LC50 | values tha | t are relevant for classification: |
|-----------|--------------|------------------------------------|
| 64742-47- | 8 Distillate | es (petroleum), hydrotreated light |
| Oral | LD50 | >8000 mg/kg (rat) |
| Dammal | LD50 | > 4000 mg/kg (nghhia) |

 Dermal
 LD50
 >4000 mg/kg (rabbit)

 Inhalative
 LC50/4 h
 >2500 (PPM) mg/l (rat)

- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No 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

· Carcinogenic categories

| · IARC (Inte | rnational Agency for Research on Cancer) | | |
|--------------|------------------------------------------|----|-------|
| 1333-86-4 | Carbon black | 2B | 8.63% |

· 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.
- · 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.

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· Other adverse effects No further relevant information available.

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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.

This material and containers that are not empty, if discarded, would be regulated as a hazardous waste under RCRA. Treatment and disposal must be completed at a RCRA permitted treatment, storage, and disposal facility (TSD). The storage and transportation of RCRA hazardous wastes are also regulated by the USEPA.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

| UN-Number | |
|--------------------------------------------|------------------------------------------------------------------|
| DOT, ADR, ADN, IMDG, IATA | Void |
| UN proper shipping name | |
| DOT, ADR, ADN, IMDG, IATA | Void |
| Transport hazard class(es) | |
| DOT, ADR, ADN, IMDG, IATA | |
| Class | Void |
| Packing group | |
| DOT, ADR, IMDG, IATA | Void |
| Environmental hazards: | |
| Marine pollutant: | No |
| Special precautions for user | Bulk packaging may be regulated / classified differently than no |
| | bulk depending on mode of transport |
| Transport in bulk according to Annex II of | |
| MARPOL73/78 and the IBC Code | Not applicable. |
| Transport/Additional information: | |
| DOT | |
| Remarks: | Printing Ink Not regulated |
| ADR | |
| Remarks: | Printing Ink Not Regulated |
| <i>IMDG</i> | |
| Remarks: | Printing Ink Not Regulated |
| IATA | |
| Remarks: | Printing Ink Not Regulated |

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15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara

· SARA Title III Section 311/312 - Hazard Communication Standard (40 CFR 370)

64742-47-8 Distillates (petroleum), hydrotreated light

78.25%

· TSCA (Toxic Substances Control Act):

All ingredients are listed or exempt.

| | 64742-47-8 Distillates (petroleum), hydrotreated light | |
|---|--------------------------------------------------------|-----------------------------------------------|
| | | glycerol ester of partially polymerized rosin |
| Γ | 1333-86-4 | Carbon black |
| | 8030-76-0 | lecethin f (kelcin) |

· Proposition 65 /Chemicals known to cause cancer:

1333-86-4 Carbon black

8.63%

· Cancerogenity categories

· TLV (Threshold Limit Value established by ACGIH)

1333-86-4 Carbon black

A4 8.63%

· NIOSH (National Institute for Occupational Safety and Health)

1333-86-4 Carbon black

8.63%

· State regulations

· Massachussetts Right-to-know / Hazardous Substance Codes

1333-86-4 Carbon black

2,4 F5 | 8.63%

· Minnesota Right To Know / Hazardous Substances

1333-86-4 | Carbon black

Codes: ANOR, Carcinogen 8.63%

· Illinois Right To Know

None of the ingredients is listed.

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms GHS08
- · Signal word Danger

· Hazard-determining components of labeling:

Distillates (petroleum), hydrotreated light

Carbon black

· Hazard statements

Suspected of causing cancer.

May be fatal if swallowed and enters airways.

· Precautionary statements

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

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

If swallowed: Immediately call a poison center/doctor.

IF exposed or concerned: Get medical advice/attention.

Do NOT induce vomiting.

Store locked up.

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

· National regulations:

· Occupational Safety and Health Act (OSHA)

Immediate (acute) health hazard

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Delayed (chronic) Health 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

H304 May be fatal if swallowed and enters airways.

H351 Suspected of causing cancer.

- · Contact: Compliance Department
- · Date of preparation / last revision 06/17/2015 / -
- · 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 Organisation

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

 $DOT: \ US \ Department \ of \ Transportation$

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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

Carc. 2: Carcinogenicity, Hazard Category 2 Asp. Tox. 1: Aspiration hazard, Hazard Category 1

USA