

SAFETY DATA SHEET

Issuing Date 09-Mar-2016

Reviewed Date 17-Aug-2023

Revision Number 4

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code(s)

K-BK1

Product Name

K Series Black Stencil Ink

Component

Other means of identification

Other Information

This Safety Data Sheet complies with the requirements of the OSHA Hazard Communication Standard 2012 Final Rule. This product is intended for use by properly trained and qualified professionals after having familiarized themselves with this SDS and understand all hazards to themselves and the environment through a comprehensive training program according to the Hazard Communication Standard 29 CFR 1910.1200, and the Occupational Safety and Health adoption of the Global Harmonization Standard (GHS). Use of this product may present additional hazards, and no guarantee is implied that the hazards and necessary precautions listed in this document are the only ones present. Customers using this product are responsible for determining proper personal protection equipment according to the specific conditions, PPE listed are a minimum standard. This product is not intended for general public use.

Recommended use of the chemical and restrictions on use

Recommended Use

Coatings.

Uses advised against

Restricted to professional users

Details of the supplier of the safety data sheet

Manufacturer Address

Marsh Shipping Supply Co., LLC
926 McDonough Lake Road - Unit E
Collinsville, IL 62234
USA

Emergency telephone number

24 Hour Emergency Phone Number

Infotrac: 1-800-535-5053

International: call collect 352-323-3500

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity	Category 2
Aspiration toxicity	Category 1

Label elements

Danger

Hazard statements

Suspected of causing cancer
May be fatal if swallowed and enters airways

**Appearance** Paint**Physical state** liquid**Odor** Aromatic**Precautionary Statements**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor/physician
 IF SWALLOWED: Immediately call a POISON CENTER or doctor
 Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

May be harmful in contact with skin Toxic to aquatic life with long lasting effects Toxic to aquatic life

Unknown acute toxicity 12.49 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	CAS No.	Weight-%
calumet 420-460	64742-47-8	78.25
Carbon black	1333-86-4	8.63

4. FIRST AID MEASURES

Description of first aid measures**General advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. Call 911 or emergency medical service. Immediately call a POISON CENTER or doctor/physician. Use first aid treatment according to the nature of the injury.

Inhalation

Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur. Administer oxygen if breathing is difficult. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician. Unconscious persons should be moved to an uncontaminated area and, as necessary, given artificial resuscitation and supplemental oxygen.

Eye contact	Do not rub affected area. In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms occur.
Skin contact	Remove material from skin immediately. Wash off immediately with soap and plenty of water for at least 15 minutes. Do not use solvents or thinners to dissolve the material. Take off contaminated clothing and wash before reuse. Get medical attention immediately if symptoms occur. Allergic symptoms may be delayed.
Ingestion	ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Remove all sources of ignition. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Symptoms may include headache, dizziness, thirst, cramping, coughing, and nausea. These symptoms may be delayed. Repeated or prolonged exposure may cause kidney, liver, neurological, central nervous system, eye and skin disorders. See Section 11 for additional Toxicological Information. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Vapors may cause drowsiness and dizziness.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances. Treat symptomatically. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. May cause sensitization in susceptible persons.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical, CO ₂ , alcohol-resistant foam or water spray. Use water spray or fog; do not use straight streams. Dry sand. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	CAUTION: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	May be ignited by heat, sparks or flames. Vapors may form explosive mixture with air. Vapors may travel to source of ignition and flash back. In the event of fire and/or explosion do not breathe fumes. Containers may explode when heated. Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.). Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire may produce irritating, corrosive and/or toxic gases. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Hazardous combustion products	Carbon monoxide. Carbon dioxide (CO ₂). Hydrocarbons. Nitrogen oxides (NO _x).
Explosion data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	Yes.
Special protective equipment for	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH

fire-fighters (approved or equivalent) and full protective gear. Use only non-sparking tools.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Use personal protective equipment as required. See section 8 for more information. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to safe areas. Full encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Wear protective gloves/protective clothing and eye/face protection. All equipment used when handling the product must be grounded. Take precautionary measures against static discharges.

Other Information Refer to protective measures listed in Sections 7 and 8. Ventilate the area. Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information. Dispose of this material and its container to hazardous or special waste collection point. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Dike to collect large liquid spills. Do not touch or walk through spilled material. Keep out of drains, sewers, ditches and waterways.

Methods for cleaning up Place in appropriate chemical waste container. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use clean non-sparking tools to collect absorbed material. Use personal protective equipment as required.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use personal protection equipment. Use spark-proof tools and explosion-proof equipment. Use with local exhaust ventilation. Wash thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Do not ingest. If swallowed then seek immediate medical assistance. Ground and bond all lines and equipment associated with product system. All equipment should be non-sparking and explosion proof. Remove all sources of ignition. Remove contaminated clothing and shoes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store away from other materials. Keep/store only in original container. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep away from open flames, hot surfaces and sources of ignition. Keep in an area equipped with sprinklers.

Packaging materials use only with original package - do not repackage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Carbon black 1333-86-4	TWA: 3 mg/m ³ inhalable fraction	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³ TWA: 3.5 mg/m ³ TWA: 0.1 mg/m ³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

Other Information This product may also contain pigments that are otherwise non hazardous according to the US GHS: REFER TO ACGIH TLV NUISANCE PARTICULATE GUIDANCE OF 10mg/m³ , 3 mg/m³ respirable fraction; OSHA PEL 15mg/m³ total dust, 5mg/m³ respirable fraction.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection If splashes are likely to occur, wear safety glasses with side-shields.

Hand Protection Wear suitable gloves. Wear nitrile or natural rubber gloves to protect hands from contact. Butyl gloves are best for prolonged contact.

Skin and body protection Wear suitable protective clothing. Impervious clothing such as Tyvek(R) coveralls for light protection or Saranex(R) 23-P for moderate protection.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. Adequate ventilation should be used as the first measure to ensure airborne thresholds listed in section 8 of this SDS are not exceeded. If respirators are used, they should be used in accordance with the Hazard Communication Standard.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Appearance	Paint
Odor	Aromatic
Color	black
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7	
Melting point / freezing point	No data available	None known
Boiling point / boiling range	175 °C / 347 °F	None known
Flash point	95 °C / 203 °F	
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	Lower flammability limit: No data available
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	
<u>Other Information</u>		
Softening point	No information available	
Molecular weight	No information available	
Specific gravity	.87	
Non-Volatile (%)	21 %	
VOC Content (g/l)	683	
Density	7.28 lbs/gal	
Bulk density	No information available	

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	None under normal processing.
Conditions to avoid	
Incompatible materials	Strong acids. Strong bases. Do not store together with acids, oxidizing substances, strong alkalis, or heavy-metal compounds.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NOx). Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation

Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract.

Eye contact	Specific test data for the substance or mixture is not available. May cause irritation.
Skin contact	Repeated exposure may cause skin dryness or cracking.
Ingestion	Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways.

Chemical Name	Acute toxicity - Oral	Oral LD50	Acute toxicity - Dermal	LD50/dermal/rat - mg/kg
calumet 420-460 64742-47-8		> 5000 mg/kg (Rat)		> 2000 mg/kg (Rabbit)
Carbon black 1333-86-4		> 15400 mg/kg (Rat)		> 3 g/kg (Rabbit)

Chemical Name	Physical state	Acute toxicity - Inhalation (Dusts/Mists)	Acute toxicity - Inhalation (Gases)	Acute toxicity - Inhalation (Vapors)	Inhalation LC50	LC50 Inh 1-hr Vapor rat/rabbit (no units)	Inhalation LC50 - 4 hour vapor - mg/L
calumet 420-460 64742-47-8	-				> 5.2 mg/L (Rat) 4 h	-	-
Carbon black 1333-86-4	solid				-	-	-

Chemical Name	Acute aquatic toxicity	M-Factor	Chronic aquatic toxicity	M-Factor
calumet 420-460 64742-47-8	Category 2	-	Category 2	-

Chemical Name	NIOSH - Target Organs	STOT - single exposure	Target Organ Systemic Toxicant - Repeated exposure	Aspiration toxicity	Ozone
calumet 420-460 64742-47-8	-			Category 1	
Carbon black 1333-86-4	eyes, respiratory system lymphatic cancer in presence of PAHs				

Information on toxicological effects

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	5,597.00 mg/kg
ATEmix (dermal)	2,239.00 mg/kg

Unknown acute toxicity 12.49 % of the mixture consists of ingredient(s) of unknown toxicity

Component Information

Chemical Name	Oral LD50	LD50/dermal/rat - mg/kg	Inhalation LC50
calumet 420-460 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h

Carbon black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	Classification based on data available for ingredients. Contains a known or suspected carcinogen.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Carbon black 1333-86-4	A3	Group 2B	-	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
Target Organ Systemic Toxicant - Repeated exposure	No information available.
Target organ effects	Respiratory system, Eyes, Lymphatic System.
Aspiration hazard	May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
calumet 420-460 64742-47-8	-	45: 96 h Pimephales promelas mg/L LC50 flow-through 2.2: 96 h Lepomis macrochirus mg/L LC50 static 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-	4720: 96 h Den-dronereides heteropoda mg/L LC50
Carbon black 1333-86-4	-	-	-	5600: 24 h Daphnia magna mg/L EC50

Persistence and degradability No information available.

Bioaccumulation No information available.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products

This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers. Dispose of in accordance with federal, state and local regulations. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. This material and its container, 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 EPA.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO (air) Not regulated

IATA Not regulated

IMDG Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies

DSL/NDSL Complies

EINECS/ELINCS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any

chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CAA (Clean Air Act)

The following component(s) are listed in the Clean Air Act.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**WARNING!**

This product can expose you to chemicals including those listed below, which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Chemical Name	California Proposition 65
Carbon black - 1333-86-4	Carcinogen

U.S. State Right-to-Know Regulations**US State Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Carbon black 1333-86-4	X	X	X

U.S. EPA Label Information**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

NFPA	Health hazards 2	Flammability 1	Instability 0	Physical and chemical properties -
HMIS	Health hazards 2 *	Flammability 1	Physical hazards 0	Personal protection X
<i>Chronic Hazard Star Legend</i>	<i>* = Chronic Health Hazard</i>			

Prepared By Regulatory Compliance Department.

Reviewed Date 17-Aug-2023

Revision Note SDS sections updated.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. No express or implied warranty of merchantability or fitness for a particular purpose or use, with respect to the product information provided herein is given. The manufacturer disclosed in section 1 shall under no circumstance be liable for incidental or consequential damage nor makes any representation as to the information's accuracy or sufficiency. All suitability of use and safe handling of this product is upon the user. This product is not to be repackaged. Any re-sale or repackaging of this product is a violation of the original terms of sale, and the manufacturer shall not be held responsible whatsoever for the product or use thereof.

End of Safety Data Sheet