

According to Regulation (EC) No. 1907/2006 as amended by (ED) No. 1272/2008

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 **Product Code:** 51-0001-01
Product Name: Ink, MEK Black

1.2 **Relevant Identified uses of the substance or mixture and uses advised against:**

1.3 **Details of the Supplier of the Safety Data Sheet**

Company Name	BestCode		
Address	3034 SE Loop 820 Fort Worth, Texas, 76140		
Website	www.bestcode.co	Email	info@bestcode.co
Phone	817-349-8555	Fax	817-349-8480

1.4 **Emergency Telephone Number**
Emergency Contact Chemtel **Toll Free:** 1-800-255-3924
International: 01-813-248-0585

Section 2: Hazards Identification

2.1 **Classification of the Substance or Mixture:**
2.1.1 **Classification according to Regulation (EC) No 1272/2008 [CLP]:**

Flammable Liquids, Category 2
Serious Eye Damage/Eye Irritation, Category 2A
Specific Target Organ Toxicity (single exposure), Category 3

2.2 **Label Elements:**

2.2.1 **Labeling according to Regulation (EC) No 1272/2008 [CLP]:**



GHS Signal Word: **Danger**

GHS Hazard Phrases:

H225 - Highly flammable liquid and vapor.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.

GHS Precaution Phrases:

P233 - Keep container tightly closed.
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/.../ equipment.
P243 - Take precautionary measures against static discharge.
P242 - Use only non-sparking tools.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

GHS Response Phrases:

P370+378 - In case of fire, use ... to extinguish.
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

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P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+313 - If eye irritation persists, get medical advice/attention.

P309+311 - Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

GHS Storage and Disposal Phrases:

P403+235 - Store in cool/well-ventilated place.

P501 - Dispose of contents/container to

P405 - Store locked up.

P403+233 - Store container tightly closed in well-ventilated place - if product is as volatile as to generate hazardous atmosphere.

2.3 Emergency Overview

Flammable black liquid. Keep away from heat, sparks, flames and other sources of ignition including static electricity. Contains nitrocellulose: Dried ink is a flammable solid.

2.3.1 Inhalation:

Low vapor concentrations cause irritation of the respiratory tract causing coughing and slight difficulty with breathing. High concentrations produce more severe irritation, and may be accompanied by nausea, fatigue, weakness, euphoria, drowsiness, double vision, ataxia, and coma.

2.3.2 Skin Contact:

Prolonged exposure may result in the absorption of a harmful amount of the material.

2.3.3 Eye Contact:

May be an eye irritant and can cause severe eye injury

2.3.4 Ingestion:

Moderately toxic. Ingestion of moderate quantities may cause abdominal discomfort, nausea, and drowsiness.

Section 3. Composition/Information on Ingredients

CAS #	Hazard components (Chemical Name)/ Reach Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
78-93-3	Methyl Ethyl Ketone	60.0-90.0%	201-159-0 606-002-00-3	Flam. Liq. 2: H225 Eye Damage 2: H319 TOST (SE) 3: H335 H336
64-17-5	Ethyl alcohol	5.0 -10.0 %	200-578-6 603-002-00-5	Flam. Liq. 2: H225
9004-70-0	Nitrocellulose	5.0-15.0%		Flam. Liq. 2: H225
	Chromium III Compound	<10.0%		
67-63-0	Isopropyl Alcohol	<10.0%	200-661-7	Flam. Liq. 2: H225 Eye Damage 2A: H319 TOST (SE) 3: H336

Section 4. First Aid Measures

4.1 Description of First Aid Measures:

In Case of Inhalation:

Move exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Keep affected person warm and at rest. Seek medical attention.

In Case of Skin

Contact:

Remove contaminated clothing. Wash affected area with plenty of soap and water. Seek medical attention if irritation develops or persists.

In Case of Eye

Contact:

Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist.

In Case of Ingestion:

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! If affected person is conscious and alert, give 2 to 3 glasses of water to dilute the swallowed material. Do not induce vomiting. If vomiting occurs, the head should be kept low so that the stomach vomit does not enter the lungs. Seek immediate medical attention.

4.2 Important Symptoms and Effects, Both Acute and Delayed:

Note for the Doctor:

Section 5. Fire Fighting Measures

- 5.1 Suitable Extinguishing Media:** Use: Alcohol resistant foam, Carbon Dioxide, Dry Chemical, water spray.
- 5.2 Flammable Properties and Hazards:**
- Flash Point:** -4 °C Method Used: Estimate
The Flash Point for the ink is expected to be elevated by the presence of Ethanol.
- Explosive Limits:** LEL: UEL:
- Autoignition Point:** 365.00 °C
- 5.3 Fire Fighting Instructions:**
- Wear approved/certified self-contained breathing apparatus and full protective gear.
Keep run-off water out of sewers and water sources. Dike for water control. If risk of water pollution occurs, notify appropriate authorities. Use water to keep fire exposed containers cool and disperse vapors. Move container from fire area if it can be done without risk.
Vapors from this product may travel or be moved by air currents and could be ignited by any source of ignition, including static electricity.
Contains nitrocellulose: Dried ink is flammable and should be extinguished with large quantities of water. Do not use carbon dioxide, foam, dry powder or sand to extinguish dried ink fire.
Combustion may lead to production of carbon monoxide and/or carbon dioxide.

Section 6. Accidental Release Measures

- 6.1 Protective Precautions, Protective Equipment and Emergency Procedures:** Chemical splash goggles, protective clothing, gloves.
- 6.2 Environmental Precautions:** Do not allow material to enter into public sewer system, waterway, or ground. If large amounts of material are released, report to appropriate local and/or state agencies.
- 6.3 Methods and Material for Containment and Cleaning Up:** Ventilate. Stop leak if it can be done without risk. If needed, dike spill using absorbent or impervious material such as vermiculite, dry sand, clay, or earth.
Collect spills with absorbent, non-combustible material into suitable containers.

Section 7. Handling and Storage

- 7.1 Precautions to be taken when Handling:** Flammable liquid. Keep away from heat, sparks and open flame. Avoid spilling. Avoid skin and eye contact. Avoid prolonged or repeated contact with liquid and inhalation of vapor or mist. Use in well ventilated area. Can release vapors that form flammable mixtures at temperatures at or above the flashpoint.
- 7.2 Precautions to be Taken in Storing:** Keep away from heat, sparks, and open flames. Store in a cool, dry place with adequate ventilation in tightly sealed containers. Empty containers contain flammable residue. Do not expose to heat or other sources of ignition.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters

CAS#	Partial Chemical Name	Britain EH40	France VL	Europe
78-93-3	Butanone (MEK)	TWA: 600 mg/m ³ (200 ppm) STEL: 899 mg/m ³ (300 ppm)	TWA: 600 mg/m ³ (200 ppm) STEL: 900 mg/m ³ (300 ppm)	TWA: 600 mg/m ³ STEL: 900 mg/m ³
64-17-5	Ethanol	TWA: 1920 mg/m ³ (1000 ppm) STEL: ()	TWA: 1900 mg/m ³ (1000 ppm) STEL: 9500 mg/m ³ (5000ppm)	

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67-63-0	Isopropyl Alcohol	STEL: 1250 mg/m3 (500 ppm)	STEL: 980 mg/m3 (400 ppm)	
	Chromium III Compounds			

CAS#	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
78-93-3	Butanone (MEK)	PEL: 200 ppm	TLV: 200 ppm STEL: 300 ppm	
64-17-5	Ethanol	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000ppm)	
67-63-0	Isopropyl Alcohol		TWA: 200 ppm STEL: 400 ppm	
	Chromium III Compounds			

8.2 Exposure Controls

8.2.1 Engineering Controls: (Ventilation etc.):

Local exhaust to minimize exposure to vapor and particulate matter.

8.2.2 Personal Protection Equipment: Eye Protection:

Eye bath, safety shower

Wear monogoggles or face shield.

Protective Gloves:

Wear impermeable gloves such as "Viton" nitrile and a protective apron to minimize possibility of skin contact.

Other Protective Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respiratory Equipment (Specify Type):

The use of respiratory protection depends on vapor concentration above the time weighted TLV. Use a NIOSH-approved cartridge respirator or gas mask. Do not wear contact lenses.

Hygienic Practices:

DO NOT SMOKE IN WORK AREA! Promptly remove contaminated clothing. Wash immediately if skin becomes contaminated. Do not eat or drink in work area while using this product. Wash thoroughly at the end of the workday, before eating and using the restroom.

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States:	<input type="checkbox"/> Gas	<input checked="" type="checkbox"/> Liquid	<input type="checkbox"/> Solid
Appearance and Odor:	Black, Characteristic Ketone		
Melting Point:	-86 °C		
Boiling Point:	79°C		
Flash Pt:	-4° C	Method Used:	Estimate
Evaporation Rate:	7.3 (n.Bu.Acet.=1)		
Explosive Limits:	LEL:		UEL:
Vapor Pressure (vs. Air or mm Hg):			
Vapor Density (vs. Air = 1):	> Air		
Specific Gravity (Water = 1):			
Density:	6.3LB/GA		
Solubility in Water:			
Autoignition Pt:	404°C		

9.2 Other Information

Percent Volatile:

Section 10. Stability and Reactivity

10.1 Reactivity

10.2 Stability

Unstable ☐

Stable ☒

10.3 Conditions To Avoid -

Hazardous Reactions:

Possibility of Hazardous Reactions:

Will occur ☐

Will not occur ☒

- | | | |
|-------------|---|--|
| 10.4 | Conditions to Avoid - Instability | All ignition sources. |
| 10.5 | Incompatibility – Materials to Avoid | This product is incompatible with strong oxidizing agents, strong acids or bases, alkalis and chlorinated compounds. |
| 10.6 | Hazardous Decomposition or Byproducts: | Thermal decomposition in the presence of air may yield carbon monoxide and/or carbon dioxide. |

Section 11. Toxicological Information

11.1 Information of Toxicological Effects:

Acute Data:

Eye Irritation	EYE CONTACT: Irritant to eyes and mucous membranes.
Skin Irritation:	SKIN CONTACT: Irritant to skin.
ORAL LD50:	Unknown
DERMAL LD50:	Unknown
INHALATION LD50:	Unknown

Chronic Toxicological Effects:

TOXICITY STUDIES:	Not Determined
MUTAGENICITY DATA:	Not Determined
REPRODUCTIVE/TERATOLOGY DATA:	Not Determined
CARCINOGENICITY DATA:	None Known

Section 12. Ecological Information

- | | | |
|-------------|--|----------------|
| 12.1 | Toxicity: | Not Determined |
| 12.2 | Persistence and Degradability: | Not Determined |
| 12.3 | Bioaccumulative Potential: | Not Determined |
| 12.4 | Mobility in Soil: | Not Determined |
| 12.5 | Results of PBT and vPvB assessment: | Not Determined |

Section 13. Disposal Considerations

- | | | |
|-------------|--------------------------------|---|
| 13.1 | Waste Disposal Method: | Dispose of material in accordance with applicable local, state, or federal regulations. |
| | Contaminated Packaging: | Dispose of material in accordance with applicable local, state, or federal regulations. |
| | SPECIAL PRECAUTIONS: | None |

Section 14. Transport Information

GHS Classification Flammable Liquids, Category 2 - Danger! Highly flammable liquid and vapor
 Serious Eye Damage/Eye Irritation, Category 2A - Warning! Causes serious eye irritation
 Specific Target Organ Toxicity (single exposure), Category 3 - Warning! May cause respiratory irritation, or may cause drowsiness and dizziness

14.1 LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]

DOT Hazard Class: 3 FLAMMABLE LIQUID
UN/NA Number: UN 1210 **Packing Group:** II

14.2 LAND TRANSPORT (Canadian TDG):

Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]

UN Number 1210 **Packing Group:** II
Hazard Class 3 – FLAMMABLE LIQUID **TDG Classification:**

14.3 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name:
UN Number 1210 **Packing Group:** II
Hazard Class 3 – FLAMMABLE LIQUID

14.4 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]

Section 15. Regulatory Information

15.1 US Federal Regulations SARA 313

Section 311/312 Categorizations (40 CFR 372): This product is a hazardous chemical under 29 CFR 1910.1200, and is categorized as an IMMEDIATE HEALTH, DELAYED HEALTH and FIRE hazard. This product contains the following hazardous chemicals subject to reporting the reporting requirements of Section 313, Title 3 of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Chemical Name	CAS Number	% Weight
Methyl Ethyl Ketone	78-93-3	65.0-75.0%
Chromium III Compound		<10.0%

TSCA Status: All chemical substances used in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances

CERCLA The following chemicals are listed by CERCLA:

Chemical Name	CAS Number	% Weight	CERCLA RQ(lbs)
Methyl Ethyl Ketone	78-93-3	65.0-75.0%	5,000

15.4 Calibration Proposition 65

This product contains the following chemicals listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm:

Chemical Name	CAS Number	California Proposition 65
1,4-Dioxane	123-91-1	

Section 16. Other Information

Revision Date: 7/27/15

**Additional Information About
this Product:**

Company Policy or Disclaimer

The information and recommendations contained herein are, to the best of BestCode's knowledge and belief, accurate and reliable as of the date issued. Because many factors may affect processing or application/use, BestCode recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the descriptions, designs, data and information furnished by BestCode hereunder are given gratis and BestCode assumes no obligation or liability for the description, designs, data and information given or results obtained. All such being given and accepted at your risk.