

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:** 51-0005-01
Product Name: Ink, MEK Yellow Soft Pigment
- 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 | Email | info@bestcode.co |
| Address | 3034 SE Loop 820
Fort Worth, Texas, 76140 | Fax | 817-349-8480 |
| Website | www.bestcode.co | | |
| Phone | 817-349-8555 | | |
- 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.
H226 Flammable liquid and vapor
H302 Harmful if swallowed.
H312 Harmful in contact with skin
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 - Causes serious eye irritation.
H332 Harmful if inhaled
H335 - May cause respiratory irritation.
H336: May cause drowsiness or dizziness

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.

Safety Data Sheet

Part Number: 51-0005-01

Name: Ink, MEK Yellow Soft Pigment

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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.

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

Yellow liquid. Do not ingest. Avoid inhalation. Avoid contact with eyes. Minimize contact with skin and clothing.

2.3.1 Inhalation:

Breathing of vapor or mist is possible. Breathing small amounts of the material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits. Breathing air containing n-butyl acetate, which results from its use in aerosol applications, may cause delayed lung injury.

2.3.2 Skin Contact:

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

2.3.3 Eye Contact:

May cause mild eye irritation. Symptoms include stinging, tearing and redness.

2.3.4 Ingestion:

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting, resulting in lung inflammation and other lung injury.

2.3.5 Symptoms of Exposure:

Signs and symptoms of exposure to MEK and/or n-butyl acetate through breathing, swallowing and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), cough, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), narcosis (dazed or sluggish feeling).

2.3.6 Target Organ Effects:

Based on animal studies, exposure to methyl ethyl ketone (MEK) increases the onset of peripheral neuropathy caused by exposure to methyl butyl ketone (MBK), and/or n-hexane, and/or ethyl butyl ketone. MEK alone has not been shown to cause peripheral neuropathy. Overexposure to MEK has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects, mild, reversible kidney effects.

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	75.0-85.0%	201-159-0 606-002-00-3	Flam. Liq. 2: H225 Eye Damage 2: H319 TOST (SE) 3: H335 H336
123-86-4	N-Butyl Acetate	1.0-5.0%	204-658-1	Flam. Liq. 2 ; H225 TOST (SE) 3: H336 Acute aquatic toxicity , Category 3 ; H402
108-94-1	Cyclohexanone	1.0 -5.0 %	203-831-1	Acute Toxicity, Dermal 4 Acute Toxicity, Inhalation 4 Acute toxicity, Oral 4 Eye damage 1 Flammable Liquids 3 Skin irritation 2

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:	If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with head down. Do not induce vomiting. Contact poison control center immediately for advice about whether to induce vomiting. Do not leave individual unattended.

4.2 Important Symptoms and Effects, Both Acute and Delayed:

Note for the Doctor:	MEK is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin lung (for example, asthma-like conditions).
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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:	-7 °C The Flash Point for the ink is expected to be elevated by the presence of Ethanol.
Explosive Limits:	LEL: 1.9% UEL: 10.0%
Autoignition Point:	404.00 °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.

Section 6. Accidental Release Measures

6.1 Protective Precautions, Protective Equipment and Emergency Procedures:	Wear chemical splash goggles or face shield, protective clothing, and 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.
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 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
123-86-4	N-Butyl Acetate			
108-94-1	Cyclohexanone			

CAS#	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
78-93-3	Butanone (MEK)	PEL: 200 ppm	TLV: 200 ppm STEL: 300 ppm	
123-86-4	N-Butyl Acetate	PEL: 150 ppm	150 ppm	
108-94-1	Cyclohexanone	50 ppm, 200 mg/m ³	20ppm STEL: 50ppm, 200mg/m ³	

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

Protective Gloves:

Wear monogoggles or face shield.

Other Protective Clothing:

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

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:

☐ Gas ☒ Liquid ☐ Solid

Appearance and Odor:

Yellow, Characteristic Ketone

Melting Point:

-86 °C

Boiling Point:

80°C

Flash Pt:

-7° C

Method Used:

Estimate

Evaporation Rate:

Explosive Limits:

LEL:

1.9%

UEL:

10.0%

Vapor Pressure (vs. Air or mm Hg):

Vapor Density (vs. Air = 1):

> Air

Specific Gravity (Water = 1):

Density:

6.1 LB/GA

Solubility in Water:

Partially Miscible

Autoignition Pt:

404°C

9.2 Other Information

Percent Volatile:

Section 10. Stability and Reactivity

10.1	Reactivity	
10.2	Stability	Unstable [] Stable [X]
10.3	Conditions To Avoid - Hazardous Reactions:	
	Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
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:	MEK and n-butyl acetate have been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.
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. Waste Codes: D001; D035; F003; F005
	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	75.0-85.0%

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
N-Butyl Acetate	123-86-4	1.0-5.0%	5,000
Cyclohexanone	108-94-1	1.0-5.0%	5,000

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Part Number: 51-0005-01
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15.2 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	% (Weight)
Toluene	123-91-1	≤0.02
Chloroethene	75-01-4	<1 ppb

15.3 WHMIS:

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Section 16. Other Information

Revision Date:

7/30/15

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, date 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.