

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:** 51-0002-01  
**Product Name:** Ink, MEK Red 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**

|                     |  |              |                  |
|---------------------|--|--------------|------------------|
| <b>Company Name</b> | BestCode                                     |              |                  |
| <b>Address</b>      | 3034 SE Loop 820<br>Fort Worth, Texas, 76140 |              |                  |
| <b>Website</b>      | www.bestcode.co                              | <b>Email</b> | info@bestcode.co |
| <b>Phone</b>        | 817-349-8555                                 | <b>Fax</b>   | 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.  
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.  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

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**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**

Flammable Red 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)/<br>Reach Registration No. | Concentration | EC No./<br>EC Index No.   | GHS Classification  |
|----------|--|---------------|---------------------------|---|
| 78-93-3  | Methyl Ethyl Ketone  | 75.0-85.0%    | 201-159-0<br>606-002-00-3 | Flam. Liq. 2: H225<br>Eye Damage 2: H319<br>TOST (SE) 3: H335 H336                        |
| 123-86-4 | N-Butyl Acetate  | 1.0-5.0%      | 204-658-1                 | Flam. Liq. 2 ; H225<br>TOST (SE) 3: H336<br>Acute aquatic toxicity ,<br>Category 3 ; H402 |

## 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:**

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).

## 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:** 505.00 °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 <sup>3</sup> (200 ppm)<br>STEL: 899 mg/m <sup>3</sup> (300 ppm) | TWA: 600 mg/m <sup>3</sup> (200 ppm)<br>STEL: 900 mg/m <sup>3</sup> (300 ppm) | TWA: 600 mg/m <sup>3</sup><br>STEL: 900 mg/m <sup>3</sup> |
| 123-86-4 | N-Butyl Acetate       |   |   |   |

| CAS#     | Partial Chemical Name | OSHA TWA     | ACGIH TWA                     | Other Limits |
|----------|-----------------------|--------------|-------------------------------|--------------|
| 78-93-3  | Butanone (MEK)        | PEL: 200 ppm | TLV: 200 ppm<br>STEL: 300 ppm |              |
| 123-86-4 | N-Butyl Acetate       | PEL: 150 ppm | 150 ppm                       |              |

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|   |  |
|---|--|
| <b>8.2 Exposure Controls</b>                              |  |
| <b>8.2.1 Engineering Controls:</b><br>(Ventilation etc.): | Local exhaust to minimize exposure to vapor and particulate matter.  |
| <b>8.2.2 Personal Protection Equipment:</b>               | Eye bath, safety shower  |
| <b>Eye Protection:</b>                                    | Wear monogoggles or face shield.   |
| <b>Protective Gloves:</b>                                 | Wear impermeable gloves such as "Viton" nitrile and a protective apron to minimize possibility of skin contact.  |
| <b>Other Protective Clothing:</b>                         | Wear appropriate protective clothing to prevent skin exposure.   |
| <b>Respiratory Equipment</b><br>(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.   |
| <b>Hygienic Practices:</b>                                | 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

|  |                              |  |                                |
|--|------------------------------|--|--------------------------------|
| <b>9.1 Information on Basic Physical and Chemical Properties</b> |                              |  |                                |
| <b>Physical States:</b>  | <input type="checkbox"/> Gas | <input checked="" type="checkbox"/> Liquid | <input type="checkbox"/> Solid |
| <b>Appearance and Odor:</b>                                      | Red, Characteristic Ketone   |  |                                |
| <b>Melting Point:</b>  | -86 °C                       |  |                                |
| <b>Boiling Point:</b>  | 80°C                         |  |                                |
| <b>Flash Pt:</b>   | -7° C                        | <b>Method Used:</b>                        | Estimate                       |
| <b>Evaporation Rate:</b>   |                              |  |                                |
| <b>Explosive Limits:</b>   | LEL:                         | 1.9%                                       | UEL: 10.0%                     |
| <b>Vapor Pressure (vs. Air or mm Hg):</b>                        |                              |  |                                |
| <b>Vapor Density (vs. Air = 1):</b>                              | > Air                        |  |                                |
| <b>Specific Gravity (Water = 1):</b>                             |                              |  |                                |
| <b>Density:</b>  | 7.4 LB/GA                    |  |                                |
| <b>Solubility in Water:</b>                                      | Partially Miscible           |  |                                |
| <b>Autoignition Pt:</b>  | 404°C                        |  |                                |
| <b>9.2 Other Information</b>                                     |                              |  |                                |
| <b>Percent Volatile:</b>   |                              |  |                                |

## Section 10. Stability and Reactivity

|  |  |
|--|--|
| <b>10.1 Reactivity</b>                                 |  |
| <b>10.2 Stability</b>                                  | Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>   |
| <b>10.3 Conditions To Avoid - Hazardous Reactions:</b> |  |
| <b>Possibility of Hazardous Reactions:</b>             | Will occur <input type="checkbox"/> Will not occur <input checked="" type="checkbox"/>                               |
| <b>10.4 Conditions to Avoid - Instability</b>          | All ignition sources.  |
| <b>10.5 Incompatibility – Materials to Avoid</b>       | This product is incompatible with strong oxidizing agents, strong acids or bases, alkalis and chlorinated compounds. |
| <b>10.6 Hazardous Decomposition or Byproducts:</b>     | 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:

|                         |   |
|-------------------------|---|
| <b>Eye Irritation</b>   | EYE CONTACT: Irritant to eyes and mucous membranes. |
| <b>Skin Irritation:</b> | SKIN CONTACT: Irritant to skin.                     |
| <b>ORAL LD50:</b>       | Unknown   |
| <b>DERMAL LD50:</b>     | Unknown   |
| <b>INHALATION LD50:</b> | Unknown   |

#### Chronic Toxicological Effects:

|                                      |   |
|--------------------------------------|---|
| <b>TOXICITY STUDIES:</b>             | Not Determined  |
| <b>MUTAGENICITY DATA:</b>            | Not Determined  |
| <b>REPRODUCTIVE/TERATOLOGY DATA:</b> | MEK has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. |
| <b>CARCINOGENICITY DATA:</b>         | None Known  |

## Section 12. Ecological Information

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

## Section 13. Disposal Considerations

|                                    |  |
|------------------------------------|--|
| <b>13.1 Waste Disposal Method:</b> | Dispose of material in accordance with applicable local, state, or federal regulations.<br>Waste Codes: D001; D035; F003; F005 |
| <b>Contaminated Packaging:</b>     | 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):

|                                  |  |                  |    |
|----------------------------------|--|------------------|----|
| <b>DOT Proper Shipping Name:</b> | Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable] |                  |    |
| <b>DOT Hazard Class:</b>         | 3  | FLAMMABLE LIQUID |    |
| <b>UN/NA Number:</b>             | UN 1210  | Packing Group:   | II |

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- 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  
**Hazard Class:** 3 – FLAMMABLE LIQUID  
**Packing Group:** II  
**TDG Classification:**
- 14.3 LAND TRANSPORT (European ADR/RID):**
- ADR/RID Shipping Name:**  
**UN Number:** 1210  
**Hazard Class:** 3 – FLAMMABLE LIQUID  
**Packing Group:** II
- 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          |

### 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   | ≤0.0075    |
| Chloroethene      | 75-01-4    | <0.537 ppb |
| Trichloroethylene | 79-01-6    | <0.01      |

### 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:

7/28/15

#### 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

## **Safety Data Sheet**

**Date:7/27/15**

**Part Number: 51-0002-01**

**Name: Ink, MEK Red Soft Pigment**

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