

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:** 50-0001-01
Product Name: Cleaner, MEK

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, 76149		
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.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 - Use only outdoors or in a well-ventilated area.

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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.
 P312 - Call a POISON CENTER or doctor/physician if 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 Adverse Human Health Effects and Symptoms:

Chronic: Chronic inhalation may cause effects similar to those of acute inhalation. Prolonged or repeated skin contact may cause defatting and dermatitis. Animal studies have reported that fetal effects/abnormalities may occur when maternal toxicity is seen. Chronic overexposure to vapors may cause lung damage.

2.3.1 Inhalation:

Causes respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness. May cause central nervous system effects such as nausea and headache. Neurobehavioural effects of exposure to MEK (200 ppm for 4 hrs) were studied with 137 volunteers. There were no statistically significant effects observed in biochemical, psychomotor, sensorimotor and psychological tests.

2.3.2 Skin Contact:

May be absorbed through the skin in harmful amounts. Repeated or prolonged exposure may cause drying and cracking of the skin. Only one human case of skin sensitization was located. Negative results were obtained in an animal test; MEK did not produce skin sensitization in the mouse ear thickness test.

2.3.3 Eye Contact:

Causes eye irritation. Vapors may cause eye irritation. Animal evidence suggests that MEK is a moderate to severe eye irritant.

2.3.4 Ingestion:

May cause irritation of the digestive tract. Possible aspiration hazard. May cause central nervous system depression. Animal evidence suggests that MEK can be aspirated (inhaled) into the lungs during ingestion or vomiting.

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	>90.0%	201-159-0 606-002-00-3	Flam. Liq. 2: H225 Eye Damage 2A: H319 STOT (SE) 3: H335 H336

Section 4. First Aid Measures

4.1 Description of First Aid Measures:

In Case of Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

In Case of Skin Contact: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

In Case of Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

In Case of Ingestion: Potential for aspiration if swallowed. Get medical aid immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward.

4.2 Important Symptoms and Effects, Both Acute and Delayed:

Note for the Doctor: Treat symptomatically and supportively.

Section 5. Fire Fighting Measures

- 5.1 Suitable Extinguishing Media:** In case of fire, use carbon dioxide, dry chemical powder or appropriate foam. Water may be ineffective because it will not cool material below its flash point.
- 5.2 Flammable Properties and Hazards:**
- | | | | |
|----------------------------|-----------|---------------------|------------|
| Flash Point: | --7.00 C | Method Used: | Estimate |
| Explosive Limits: | LEL: 1.9% | | UEL: 10.0% |
| Autoignition Point: | 404.00 C | | |
- 5.3 Fire Fighting Instructions:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Extremely flammable liquid and vapor. Vapor may cause flash fire. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

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:** Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

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 or vapor or mist. Use in well-ventilated area. Can release vapors that form flammable mixtures at temperatures at or about 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 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	Methyl ethyl ketone	TWA: 600 mg/m3 (200ppm) STEL: 899 mg/m3 (300ppm)	TWA: 600 mg/m3 (200ppm) STEL: 900 mg/m3 (300ppm)	TWA: 600mg/m3 STEL: 900 mg/m3 (300ppm)

CAS#	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
78-93-3	Methyl ethyl ketone	PEL: 200 ppm	200PPM STEL:350ppm	

8.2 Exposure Controls

- 8.2.1 Engineering Controls: (Ventilation etc.):** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Ventilation fans and other electrical service must be non-sparking and have an explosion-proof design.
- 8.2.2 Personal Protection Equipment: Eye Protection:** Wear chemical splash goggles.

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Protective Gloves:	Wear appropriate protective gloves to prevent skin exposure. Wear appropriate protective clothing to prevent skin exposure.
Other Protective Clothing:	
Respiratory Equipment (Specify Type):	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Other protective equipment	Eye bath, safety shower
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:	Clear (Upon aging, clear or colorless fluids may develop a slight yellow tint which will not affect the product performance). Characteristic Ketone		
Melting Point:	-86.00 C		
Boiling Point:	80.00 C		
Flash Pt:	-7.00 C	Method Used:	Estimate
Evaporation Rate:	5.8 (BuAC=1)		
Explosive Limits:	LEL:	1.9%	UEL: 10.0%
Vapor Pressure (vs. Air or mm Hg):	94.5 MM_HG at 25.0 C		
Vapor Density (vs. Air = 1):	> Air		
Specific Gravity (Water = 1):			
Density:	6.7 LB/GAL, 20C		
Solubility in Water:	Partially Miscible		
Autoignition Pt:	404.00 °C		

9.2 Other Information

Percent Volatile:	99.999 % by volume.
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Section 10. Stability and Reactivity

10.1 Reactivity	
10.2 Stability	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>
10.3 Conditions To Avoid - Hazardous Reactions:	
Possibility of Hazardous Reactions:	Will occur <input type="checkbox"/> Will not occur <input checked="" type="checkbox"/>
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 Toxicological Effects:

Eye:	Eye Contact: Irritant to Eyes
Skin:	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:	CAS# 78-93-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Carcinogenicity:	NTP? No	IARC Monographs? No	OSHA Regulated? No
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Section 12. Ecological Information

12.1 Ecological Information	Not Determined
12.2 Degradability:	Not Determined
12.3 Acute Fish Toxicity:	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
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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
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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]		
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Section 15. Regulatory Information

15.1 Canadian 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.

CLASS B, DIVISION 2: Flammable Liquids
CLASS D, DIVISION 2, SUBDIVISION B: Toxic Materials
(Mutagenicity, skin sensitization, irritation, etc.)

15.2 SARA Title III: 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 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	CAS NUMBER
Methyl Ethyl Ketone (MEK)	78-93-3

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

15.4 CERCLA The following chemicals are listed by CERCLA:

CHEMICAL	CAS NUMBER	% (WEIGHT)	RQ (lbs)
Methyl Ethyl Ketone (MEK)	78-93-3	>90%	5000

15.5 California Prop 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	CAS NUMBER	% (WEIGHT)
None		

Section 16. Other Information

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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 recommends 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.