

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:** 52-0001-01
Product Name: Makeup, 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, 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.

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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 Adverse Human Health Effects and Symptoms:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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.

Ingredient CAS# 64-17-5, Ethyl alcohol:

May cause reproductive and fetal effects. Laboratory experiments have shown mutagenic effects. Animal studies have reported the development of tumors. Prolonged exposure may cause liver, kidney, and heart damage.

2.3.1 Inhalation:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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.

Ingredient CAS# 64-17-5, Ethyl alcohol:

Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation.

2.3.2 Skin Contact:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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.

Ingredient CAS# 64-17-5, Ethyl alcohol:

Causes moderate skin irritation. May cause cyanosis of the extremities.

2.3.3 Eye Contact:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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

Ingredient CAS# 64-17-5, Ethyl alcohol:

Causes severe eye irritation. May cause painful sensitization to light. May cause chemical conjunctivitis and corneal damage.

2.3.4 Ingestion:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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.

Ingredient CAS# 64-17-5, Ethyl alcohol:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause systemic toxicity with acidosis. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

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

Section 4. First Aid Measures

4.1 Description of First Aid Measures:

In Case of Inhalation:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Ingredient CAS# 64-17-5, Ethyl alcohol:
Remove from exposure and move to fresh air immediately. Do NOT use mouth-to-mouth resuscitation.

In Case of Skin Contact:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

Ingredient CAS# 64-17-5, Ethyl alcohol:
Get medical aid. Flush skin with plenty of soap and water.

In Case of Eye Contact:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
Get medical aid.

Ingredient CAS# 64-17-5, Ethyl alcohol:
Gently lift eyelids and flush continuously with water.

In Case of Ingestion:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

Ingredient CAS# 64-17-5, Ethyl alcohol:
Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water.
Get medical aid.

4.2 Important Symptoms and Effects, Both Acute and Delayed:

Note for the Doctor:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Treat symptomatically and supportively.

Ingredient CAS# 64-17-5, Ethyl alcohol:
Persons with skin or eye disorders or liver, kidney, chronic respiratory diseases, or central and peripheral nervous system diseases may be at increased risk from exposure to this substance.
Antidote: Replace fluid and electrolytes.

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Media:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

Ingredient CAS# 64-17-5, Ethyl alcohol:
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.
For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

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5.2 Flammable Properties and Hazards:

Flash Point:	-7.00 C	Method Used:	Estimate
Explosive Limits:	LEL:		UEL:
Autoignition Point:	363.00 C		

5.3 Fire Fighting Instructions:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

Ingredient CAS# 64-17-5, Ethyl alcohol:
Replace fluid and electrolytes. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

Section 6. Accidental Release Measures

6.1 Protective Precautions, Protective Equipment and Emergency Procedures:

6.2 Environmental Precautions:

6.3 Methods and Material for Containment and Cleaning Up:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

Ingredient CAS# 64-17-5, Ethyl alcohol:
A vapor suppressing foam may be used to reduce vapors.

Section 7. Handling and Storage

7.1 Precautions to be taken when Handling:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Avoid breathing vapor.

7.2 Precautions to be Taken in Storing:

Ingredient CAS# 64-17-5, Ethyl alcohol:
Use only in a well-ventilated area. Avoid ingestion and inhalation.

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

Ingredient CAS# 64-17-5, Ethyl alcohol:
Keep away from heat, sparks and flame. Store in a tightly closed container. Keep from contact with oxidizing materials. Do not store near perchlorates, peroxides, chromic acid or nitric acid.

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/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	Ethyl alcohol	TWA: 1920 mg/m ³ (1000 ppm) STEL: ()	TWA: 1900 mg/m ³ (1000 ppm) STEL: 9500 mg/m ³ (5000ppm)	

CAS#	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
78-93-3	Methyl Ethyl Ketone	PEL: 200 ppm	TLV: 200 ppm STEL: 300 ppm	
64-17-5	Ethyl alcohol	PEL: 1000 ppm	TLV: 1000 ppm	

8.2 Exposure Controls

8.2.1 Engineering Controls: (Ventilation etc.):

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

Ingredient CAS# 64-17-5, Ethyl alcohol:
Use explosion-proof ventilation equipment.

8.2.2 Personal Protection Equipment: Eye Protection:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Wear chemical splash goggles.

Protective Gloves:

Ingredient CAS# 64-17-5, Ethyl alcohol:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Wear appropriate protective gloves to prevent skin exposure.

Ingredient CAS# 64-17-5, Ethyl alcohol:

Other Protective Clothing:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Wear appropriate protective clothing to prevent skin exposure.

Ingredient CAS# 64-17-5, Ethyl alcohol:

Respiratory Equipment (Specify Type):

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

Ingredient CAS# 64-17-5, Ethyl alcohol:
A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

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:	-114.10 C		
Boiling Point:	78.00 C		
Flash Pt:	-7.00 C	Method Used:	Estimate
Evaporation Rate:	4.6 (BuAC=1)		
Explosive Limits:	LEL:	UEL:	
Vapor Pressure (vs. Air or mm Hg):	82 MM_HG at 20.0°C		
Vapor Density (vs. Air = 1):	> Air		
Specific Gravity (Water = 1):	0.801		
Density:	6.68 LB/GA		
Solubility in Water:	Miscible		
Autoignition Pt:	363.00 C		

9.2 Other Information

Percent Volatile: > 99.0 % by Volume

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

Ingredient CAS# 78-93-3, Methyl ethyl ketone: ignition sources, Excess heat, confined spaces,

Ingredient CAS# 64-17-5, Ethyl alcohol: Incompatible materials, oxidizers.

10.5 Incompatibility – Materials to Avoid

Ingredient CAS# 78-93-3, Methyl ethyl ketone: Strong oxidizing agents, Strong acids, 2-propanol,

Ingredient CAS# 64-17-5, Ethyl alcohol: acids, Alkali metals, Ammonia, hydrazine, Peroxides, Sodium, Acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, Perchloric acid, silver nitrate, mercuric nitrate, potassium tert-butoxide, magnesium perchlorate, Acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.

10.6 Hazardous Decomposition or Byproducts:

Ingredient CAS# 78-93-3, Methyl ethyl ketone: Carbon monoxide, Carbon dioxide, Peroxides,

Ingredient CAS# 64-17-5, Ethyl alcohol: Irritating and toxic fumes and gases.

Section 11. Toxicological Information

11.1 Information of Toxicological Effects:

Chronic Toxicological Effects:

Ingredient CAS# 78-93-3, Methyl ethyl ketone: CAS# 78-93-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Ingredient CAS# 64-17-5, Ethyl alcohol: CAS# 64-17-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Carcinogenicity/Other Information:

Carcinogenicity:

NTP? No

IARC Monographs? No

OSHA Regulated? No

Section 12. Ecological Information

- 12.1 Toxicity:**
- Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Environmental: Substance evaporates in water with T1/2= 3D (rivers) to 12D (lakes).
Substance is not expected to bioconcentrate in marine life. Physical: Substance photodegrades in air with T1/2 = 2.3 days.
Oxidizes rapidly by photo-chemical reactions in air. Readily biodegradable meeting the 10 day window criterion. Not expected to bioaccumulate significantly.
Other: No information available.
- Ingredient CAS# 64-17-5, Ethyl alcohol:
When released to the atmosphere it will photodegrade in hours (polluted urban atmosphere) to an estimated range of 4 to 6 days in less polluted areas. Rainout should be significant.
Physical: No information available.
- 12.2 Persistence and Degradability:**
- 12.3 Bioaccumulative Potential:**
- 12.4 Mobility in Soil:**
- 12.5 Results of PBT and vPvB assessment:**

Section 13. Disposal Considerations

- 13.1 Waste Disposal Method:**
- Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series:
CAS# 78-93-3: waste number U159 (Ignitable waste, Toxic waste).
- Ingredient CAS# 64-17-5, Ethyl alcohol:
RCRA U-Series: None listed.

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:**

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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

Canadian WHMIS Classification:

CLASS B, DIVISION 2: Flammable Liquids

CLASS D, DIVISION 2, SUBDIVISION A: Very Toxic Materials (carcinogens, reproductive toxicity, etc.)

Section 16. Other Information

Revision Date:

7/23/15

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.