Safety Data Sheet

		Date:	12/06/2022
Product Number:	52-0001-01	Revision:	D
Product Name:	Makeup, MEK		

Based upon Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Name: Makeup, MEK
Registration Number: Not Relevant (Mixture)
Product Code: 52-0001-01

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product Use: Printing ink for use in BestCode CIJ

1.3 Details of the supplier of the safety data sheet

BestCode
3034 SE Loop 820
Fort Worth, TX 76140
817-349-8555

For further information, please contact Customer Service:

Customer Service: 817-349-8555
Email: Info@Bestcode.co

1.4 Emergency telephone number

Emergency Contact:		Local Poison Information Center
Chem Tel. Inc.	Toll Free	800-255-3924
	International	813-248-0585

Section 2: Hazards identification

2.1 Classification of the mixture in accordance with Article 40 of Regulation (EC) No 1272/2008 GHS Rating:

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

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word: Danger

Hazard statements:

H225 - Highly flammable liquid and vapor.
H226 - Flammable liquid and vapor.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.

Precautionary statements:

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P337+313 - If eye irritation persists, get medical advice/attention.
P405 - Store locked up.
P501 Dispose of contents/container to industrial combustion plant.

Supplemental Hazard Information

Hazardous Ingredients for Labelling

Methyl Ethyl Ketone

2.3 Other Hazards

Section 3: Composition/information on ingredients

3.1 Substances:

Not relevant (Mixture)

3.2 Mixtures:

Name of Substance	Identifier	Concentration	GHS Classification
Methyl Ethyl Ketone	CAS No: 78-93-3 EC No: 201-159-0 Index No: 606-002-00-3 REACH Reg. No: 01-2119457290-43-xxxx	90.0-100%	Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336;
Ethanol	CAS No: 64-17-5 EC No: 200-578-6 Index No: 603-002-00-5 REACH Reg. No: 01-2119457610-43-xxxx	0.0-10.0%	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319

Section 4: First Aid Measures

4.1 Description of first aid measures

Inhalation If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin: Wash off with soap and plenty of water. Consult a physician.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person.
Rinse mouth with water. Consult a physician.

4.2 Most Important symptoms and effects, both acute and delayed

Inhalation No Data Available
Eye contact No Data Available
Skin contact No Data Available
Ingestion No Data Available

4.3 Indication of any immediate medical attention and special treatment needed

Notes to doctor: No data available.

Section 5: Fire Fighting Measures

5.1 Extinguishing media

Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam..

5.2 Special hazards arising from the substance or mixture

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Use proper personal protective equipment as indicated in Section 8.

6.1.2 For emergency responders

Use proper personal protective equipment as indicated in Section 8.

6.2 Environmental Precautions

Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

6.3.1 For Containment:

6.3.2 Clean up and disposal of spill:

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

7.2 Conditions for safe storage, including any compatibilities

Store under inert gas. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic.
Storage class 510) Handle and store under inert gas.
Recommended storage temperature: 2 -8 - 8 deg.C.

7.3 Specific end use(s)

Fluid delivery to BestCode Series 8 CIJ. Follow safety instructions outlined in 7.1 & 7.2 while handling. Observe warnings provided with BestCode Series 8 CIJ system when installing and handling fluids.

Section 8: Exposure control/personal protection

8.1 Control parameters

CAS #	Chemical Name	Australia	Austria	Belgium
64-17-5	Ethanol	TWA: 1000ppm (1880mg/m3)	TWA: 1000ppm (1900mg/m3) STEL: 2000ppm (3800mg/m3)	TWA: 1000ppm (1907mg/m3)
78-93-3	Methyl Ethyl Ketone	TWA 150ppm (445mg/m3) STEL 300ppm (890mg/m3)	TWA 100ppm (295mg/m3) STEL 200ppm (590mg/m3)	TWA 200ppm (600mg/m3) STEL 300ppm (900mg/m3)

CAS #	Chemical Name	Ontario, CA	Québec, CA	Denmark
64-17-5	Ethanol	STEL: 1000ppm	TWA: 1000ppm (1880mg/m3)	TWA: 1000ppm (1900mg/m3) STEL: 2000ppm (3800mg/m3)
78-93-3	Methyl Ethyl Ketone	TWA 200ppm STEL 300ppm	TWA 50ppm (150mg/m3) STEL 100ppm (300mg/m3)	TWA 50ppm (145mg/m3) STEL 100ppm (290mg/m3)

CAS #	Chemical Name	European Union	Finland	France
64-17-5	Ethanol	-	TWA: 1000ppm (1900mg/m3) STEL: 1300ppm (2500mg/m3)	TWA: 1000ppm (1900mg/m3) STEL: 5000ppm (9500mg/m3)
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (600mg/m3) STEL 300ppm (900mg/m3)	TWA 20ppm (60mg/m3) STEL 100ppm (300mg/m3)	TWA 200ppm (600mg/m3) STEL 300ppm (900mg/m3)

CAS #	Chemical Name	German AGS	Germany DFG	Hungary
64-17-5	Ethanol	TWA: 200ppm (380mg/m3) STEL: 800ppm (1520mg/m3)	TWA: 200ppm (380mg/m3) STEL: 800ppm (1520mg/m3)	TWA 1900mg/m3
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (600mg/m3) STEL 200ppm (600mg/m3)	TWA 200ppm (600mg/m3) STEL 200ppm (600mg/m3)	TWA (600mg/m3) STEL (900mg/m3)

CAS #	Chemical Name	Ireland	Italy	Latvia
64-17-5	Ethanol	STEL: 1000ppm	-	TWA 1000mg/m3
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (600mg/m3) STEL 200ppm (600mg/m3)	TWA 200ppm (600mg/m3) STEL 200ppm (600mg/m3)	TWA 67ppm (200mg/m3) STEL 300ppm (900mg/m3)

CAS #	Chemical Name	New Zealand	PROC	Poland
64-17-5	Ethanol	TWA: 1000ppm (1880mg/m3)		TWA: (1900mg/m3)
78-93-3	Methyl Ethyl Ketone	TWA 150ppm (445mg/m3) STEL 300ppm (890mg/m3)	TWA (300mg/m3) STEL (600mg/m3)	TWA (450mg/m3) STEL (900mg/m3)

CAS #	Chemical Name	Romania	Singapore	South Korea
64-17-5	Ethanol	TWA: 1000ppm (1900mg/m3) STEL: 5000ppm (9500mg/m3)	TWA: 1000ppm (1880mg/m3)	TWA: 1000ppm (1900mg/m3)
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (600mg/m3) STEL 300ppm (900mg/m3)	TWA 200ppm (590mg/m3) STEL 300ppm (885mg/m3)	TWA 200ppm (590mg/m3) STEL 300ppm (885mg/m3)

CAS #	Chemical Name	Spain	Sweden	Switzerland
64-17-5	Ethanol	STEL: 1000ppm (1910mg/m3)	TWA: 500ppm (1000mg/m3) STEL: 1000ppm (1900mg/m3)	TWA: 500ppm (960mg/m3) STEL: 1000ppm (1920mg/m3)
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (600mg/m3) STEL 200ppm (600mg/m3)	TWA 500ppm (150mg/m3) STEL 300ppm (900mg/m3)	TWA 200ppm (590mg/m3) STEL 200ppm (590mg/m3)

CAS #	Chemical Name	The Netherlands	USA - NIOSH	United Kingdom
64-17-5	Ethanol	TWA: (260mg/m3) STEL: (1900mg/m3)	TWA: 1000ppm (1900mg/m3)	TWA: 1000ppm (1920mg/m3)
78-93-3	Methyl Ethyl Ketone	TWA (590mg/m3) STEL (900mg/m3)	TWA 200ppm (500mg/m3) STEL 300ppm (885mg/m3)	TWA 200ppm (600mg/m3) STEL 300ppm (899mg/m3)

CAS #	Chemical Name	OSHA PELs	ACGIH TLV	California, USA PELs
64-17-5	Ethanol	TWA 1000ppm (1900mg/m3)	STEL: 1000 ppm	PEL 1000ppm (1900mg/m3)
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (590mg/m3)	TWA 200ppm STEL 300ppm	TWA 200ppm (500mg/m3) STEL 300ppm (885mg/m3)

CAS #	Chemical Name	Mexico
64-17-5	Ethanol	CT 1000ppm
78-93-3	Methyl Ethyl Ketone	PPT 200ppm CT 300ppm

8.2 Exposure controls:

8.2.1 Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.2.2 Individual protection measures, such as personal protective equipment

Wear appropriate protective clothing to prevent skin exposure. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Eye/Face protection:	Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection:	Ingredient CAS# 78-93-3, Methyl ethyl ketone: Wear appropriate protective gloves to prevent skin exposure.
Respiratory protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Splash contact: Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 292 min. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. Full contact. Material: Nitrile rubber, Minimum layer thickness: 0.4 mm, Break through time: 480 min.
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

Appearance:	Clear Liquid (Upon aging, clear or colorless fluids may develop a slight yellow tint which will not affect the product performance).		
Odor:	Solvent	**Odor threshold:**	No data available
pH:	No data available	**Melting point:**	-89.50 C - 129.10 C
Boiling range:	80.00-82.00 C	**Flash point:**	-2.99°C
Evaporation rate:	-	**Upper Explosive Limit:**	-
		Lower Explosive Limit:	-
Flammability:	No data available	**Vapor Pressure:**	~ 82-94.5 MM_HG at 20.0 C
Vapor density:	> Air	**Relative Density:**	.8005
Solubility(ies):	Miscible	**Partition coefficient n-octanol/water:**	No data available
Auto-ignition temperature:	-	**Decomposition temperature:**	No data available
Viscosity:	No data available		
Explosive properties:	No data available		
Oxidizing properties:	No data available		

9.2 Other information:

Miscibility:	No data available	**VOC:**	No data available

Section 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Will not occur

10.4 Conditions to avoid:

Ignition sources, Excess heat, confined spaces, Incompatible materials, oxidizers.

10.5 Incompatible materials:

Strong oxidizing agents, Strong acids, 2-propanol, 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 products

Carbon monoxide, Carbon dioxide, Peroxides, irritating and toxic fumes and gases.

Section 11: Toxicological information

11.1 Information on Toxicological effects

Acute toxicity: CAS# 78-93-3:
Acute toxicity, LD50, Intraperitoneal, Mouse, 616.0 MG/KG.

Result:
Lungs, Thorax, or Respiration: Sputum.
Biochemical: Metabolism (Intermediary): Other proteins.
Biochemical: Metabolism (intermediary): Effect on inflammation or mediation of inflammation.

- Shell Chemical Company. Unpublished Report., Vol/p/yr: -,6, 1961
Acute toxicity, LD50, Skin, Species: Rabbit, 6480. MG/KG.

Result:
Lungs, Thorax, or Respiration: Other changes.
Biochemical: Metabolism (intermediary): Effect on inflammation or mediation of inflammation.

- Shell Chemical Company., Vol/p/yr: MSDS-5390-,
Acute toxicity, LC50, Inhalation, Mouse, 32.00 MG/M3.
Result:
Brain and Coverings: Other degenerative changes.
Biochemical: Metabolism (intermediary): Effect on inflammation or mediation of inflammation.

Acute toxicity, LD50, Intraperitoneal, Species: Guinea pig, 2.000 GM/KG.

	Result: Immunological Including Allergic: Increase in humoral immune response.
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	Mutagenic effects have occurred in experimental animals.
Carcinogenicity:	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.
Reproductive toxicity:	No data available
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard	No data available

11.1.1 Hazard Class information:

No data available

11.1.2 Mixture toxicity:

No data available

11.1.3 Critical studies:

No data available

11.1.4 Non-compliance hazard class:

No data available

11.1.5 Information on likely routes of exposure:

No data available

11.1.6 Symptoms related to the physical, chemical and toxicological characteristics:

No data available

11.1.7 Delayed and immediate effects as well as chronic effects from short and long-term exposure:

No data available

11.1.8 Interactive effects:

No data available

11.1.9 Absence of specific data:

No data available

11.1.10 Mixtures:

No data available

11.1.11 Mixture vs Substance information:

No data available

11.1.12 Other information:

No data available

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:

No data available

12.3 Bioaccumulative potential:

No data available

12.4 Mobility in soil:

No data available

12.5 Results of PBT and vPvB assessment:

No data available

12.6 Other adverse effects:

No data available

Section 13: Disposal considerations

13.1 Waste treatment methods:

Waste treatment-relevant information
Solvent reclamation/regeneration.

Sewage disposal-relevant information
Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages
Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks
Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

Section 14: Transport information

14.1	**UN number:**	1210
14.2	**Proper shipping name:**	
	US DOT:	Printing Ink Related Material
	Canadian TDG:	Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]
	European ADR/RID:	Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]
	IMDG/IMO:	Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]

	ICAO/IATA:	Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]
14.3	**Transport hazard class(es) :**	3 - FLAMMABLE LIQUID
14.4	**Packing group:**	II
14.5	**Environmental hazards:**	N/A
14.6	**Special precautions for user:**	N/A
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	
	N/A	

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists				
CAS #	**Hazardous components**	**S. 302 (EHS)**	**S. 304 RQ**	**S. 313 (TRI)**
64-17-5	Ethanol	-	-	-
78-93-3	Methyl Ethyl Ketone	-	-	-

CAS #	**Hazardous components**	**Canadian NPRI**	**Canadian Toxic**	**Canadian DSL**
64-17-5	Ethanol	Active	-	-
78-93-3	Methyl Ethyl Ketone	Active	-	5000lbs

Section 16: Other information

Revision Date: **12/06/2022**

Revision Notes: B: Format updated to (EU) 2015/830. New concentration ranges in Section 3. Updated Section 9 tables to reflect new concentration ranges.
C: Updated Sections 8 and 15.
D: Updated for (EU) 2020/878

Additional Information:

Company 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 ensure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures

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