

Safety Data Sheet

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

Date: 12/06/2022
Revision: C

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: Cleaner, MEK
Registration Number: 01-2119457290-43-xxxx
Product Code: 50-0001-01

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

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Hazard statements:

H225 - Highly flammable liquid and vapor.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.

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

Of no significance.

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Section 3: Composition/information on ingredients

3.1 Substance:

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	90.0-100.0	Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336;

3.2 Mixtures:

Not relevant

Section 4: First Aid Measures

4.1 Description of first aid measures

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

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

Skin: 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.

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 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: Treat symptomatically and supportively.

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Section 5: Fire Fighting Measures

5.1 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 Special hazards arising from the substance or mixture

5.3 Advice for firefighters

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 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Evacuate

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:

Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

6.3.2 Clean up and disposal of spill:

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.

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Section 7: Handling and storage

7.1 Precautions for safe handling

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 Conditions for safe storage, including any compatibilities

Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

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
78-93-3	Methyl Ethyl Ketone	TWA 150ppm (445mg/m ³) STEL 300ppm (890mg/m ³)	TWA 100ppm (295mg/m ³) STEL 200ppm (590mg/m ³)	TWA 200ppm (600mg/m ³) STEL 300ppm (900mg/m ³)

CAS #	Chemical Name	Ontario, CA	Québec, CA	Denmark
78-93-3	Methyl Ethyl Ketone	TWA 200ppm STEL 300ppm	TWA 50ppm (150mg/m ³) STEL 100ppm (300mg/m ³)	TWA 50ppm (145mg/m ³) STEL 100ppm (290mg/m ³)

CAS #	Chemical Name	European Union	Finland	France
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (600mg/m ³) STEL 300ppm (900mg/m ³)	TWA 20ppm (60mg/m ³) STEL 100ppm (300mg/m ³)	TWA 200ppm (600mg/m ³) STEL 300ppm (900mg/m ³)

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CAS #	Chemical Name	German AGS	Germany DFG	Hungary
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (600mg/m ³) STEL 200ppm (600mg/m ³)	TWA 200ppm (600mg/m ³) STEL 200ppm (600mg/m ³)	TWA (600mg/m ³) STEL (900mg/m ³)

CAS #	Chemical Name	Ireland	Italy	Latvia
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (600mg/m ³) STEL 200ppm (600mg/m ³)	TWA 200ppm (600mg/m ³) STEL 200ppm (600mg/m ³)	TWA 67ppm (200mg/m ³) STEL 300ppm (900mg/m ³)

CAS #	Chemical Name	New Zealand	PROC	Poland
78-93-3	Methyl Ethyl Ketone	TWA 150ppm (445mg/m ³) STEL 300ppm (890mg/m ³)	TWA (300mg/m ³) STEL (600mg/m ³)	TWA (450mg/m ³) STEL (900mg/m ³)

CAS #	Chemical Name	Romania	Singapore	South Korea
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (600mg/m ³) STEL 300ppm (900mg/m ³)	TWA 200ppm (590mg/m ³) STEL 300ppm (885mg/m ³)	TWA 200ppm (590mg/m ³) STEL 300ppm (885mg/m ³)

CAS #	Chemical Name	Spain	Sweden	Switzerland
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (600mg/m ³) STEL 200ppm (600mg/m ³)	TWA 500ppm (150mg/m ³) STEL 300ppm (900mg/m ³)	TWA 200ppm (590mg/m ³) STEL 200ppm (590mg/m ³)

CAS #	Chemical Name	The Netherlands	USA - NIOSH	United Kingdom
78-93-3	Methyl Ethyl Ketone	TWA (590mg/m ³) STEL (900mg/m ³)	TWA 200ppm (500mg/m ³) STEL 300ppm (885mg/m ³)	TWA 200ppm (600mg/m ³) STEL 300ppm (899mg/m ³)

CAS #	Chemical Name	OSHA PELs	ACGIH TLV	California, USA PELs
78-93-3	Methyl Ethyl Ketone	TWA 200ppm (590mg/m ³)	TWA 200ppm STEL 300ppm	TWA 200ppm (500mg/m ³) STEL 300ppm (885mg/m ³)

CAS #	Chemical Name	Mexico
78-93-3	Methyl Ethyl Ketone	PPT 200ppm CT 300ppm

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8.2 Exposure controls:

8.2.1 Appropriate engineering controls:

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 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.

Skin 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.

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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.

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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:	-87.00C
Boiling range:	80.00 C	Flash point:	-3°C
Evaporation rate:	No data available	Upper Explosive Limit:	10.1%
		Lower Explosive Limit:	1.8%
Flammability:	No data available	Vapor Pressure:	95 MM_HG at 20.0 C
Vapor density:	2.49	Relative Density:	0.8017
Solubility(ies):	Miscible	Partition coefficient n-octanol/water:	0.29
Auto-ignition temperature:	No data available	Decomposition temperature:	No data available
Viscosity:	No data available		
Explosive properties:	> 90.0 % Volatile by volume.		
Oxidizing properties:	No data available		

9.2 Other information:

Miscibility:	No data available	VOC:	No data available
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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.

10.5 Incompatible materials:

Strong oxidizing agents, Strong acids, 2-propanol

10.6 Hazardous decomposition products

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Carbon monoxide, Carbon dioxide.

Section 11: Toxicological information

11.1 Information on Toxicological effects

Acute toxicity: 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: CAS# 78-93-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

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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:

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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.

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:

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:

Waste number U159 (Ignitable waste, Toxic waste).

Section 14: Transport information

14.1	UN number:	1210
14.2	Proper shipping name:	
	US DOT:	Printing Ink Related Material

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	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)
78-93-3	Methyl Ethyl Ketone	-	-	-

CAS #	Hazardous components	TSCA	REACH	CERCLA
78-93-3	Methyl Ethyl Ketone	Active	-	5000lbs

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

None

Section 16: Other information

Revision Date: 12/6/2022
Revision Notes: A: Format updated to (EU) 2015/830.
B: Format updated to (EU) 2020/878
Additional Information:



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Company Disclaimer:

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