 Bloomchemag Private Limited	MATERIAL SAFETY DATA SHEET	MSDS No.	M-03
	Methyl Ethyl Ketone	Effective From	27.02.2017

## MATERIAL SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product Identifier

Trade Name	M.E.K (Methyl Ethyl Ketone)
Synonyms	2--BUTANONE; ETHYL METHYL KETONE; MEK; METHYL ACETONE
Chemical Formula	CH <sub>3</sub> COCH <sub>2</sub> CH <sub>3</sub>
CAS-Number	78-93-3.
Molecular Weight	72.12
REACH REGISTRATION NUMBER	01-2119457290-43-XXXX

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

Identified uses	
Industrial uses	Substance manufacturing, substance distribution, intermediate, formulation, use in coatings, use in cleaning agents, use in greases, lubricants and lubricant additives, use as fuel, Laboratory chemicals, rolling oils, Metal surface treatment oils
Professional uses	Use in coatings, use in cleaning agents, use in agrochemicals, use as fuel, Laboratory chemicals
Consumer uses	Use in coatings, use in cleaning agents, use in greases, lubricants and lubricant additives, use in agrochemicals, use as fuel

#### 1.3. Manufacturer / Supplier Contact Information :

Name	<b>Bloomchemag Private Limited</b>
Address	Unit 108, Tower 1, Assotech Business Cresterra (ABC) Sector 135, Noida - 201301 India
Telephone	Phone: +91 72919 98685/ 72919 74482/ 72919 98687/ 98713 71594
Email	<a href="mailto:info@bloomchemag.com">info@bloomchemag.com</a>

#### Belgium Office Address –

Name	<b>Bloomchemag bvba</b>
Address	Sint-Antoniusstraat 16 b1 B-2400, Mol, Belgium. Phone; + 00 32 14 322136
Email	<a href="mailto:exports@bloomchemag.com">exports@bloomchemag.com</a> / <a href="mailto:corporate@bloomchemag.com">corporate@bloomchemag.com</a>

#### 1.4. Emergency telephone number

Contact with the nearest local Fire Department

### SECTION 2: Hazard Identification

#### 2.1. Classification of the substance or mixture

##### General hazards

This product is classified as hazardous according to current regulations. GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

### Health hazards

Eye Irrit. 2	Eye irritation, Category 2	H319 Causes serious eye irritation
STOT SE 3	Specific target organ toxicity —single exposure, Category 3	H336 May cause drowsiness or dizziness- Central nervous system

### Physical hazards

Flam. Liq. 2	Flammable liquid, Category 2	H225 Highly flammable liquid and vapour
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## 2.2. Label elements

### GHS Label elements, including precautionary statements

#### Hazard pictograms



**Signal word:** Danger

#### Hazard statement(s)

H225 Highly flammable liquid and vapour  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
EUH Phrases EUH066 Repeated exposure may cause skin dryness or cracking

#### Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. -No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilation/lighting/equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash skin thoroughly after handling  
P271 Use only outdoors or in a well-ventilated area  
P280 Wear protective gloves/protective clothing/eye protection/face protection P303+P361+P353  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.  
Rinse skin with water /shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338 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+P313 If eye irritation persists: Get medical advice/attention.  
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store Locked up.  
P501 Dispose of contents/container to an approved waste disposal plant.

### 2.3 Other Hazard

Hazards not otherwise classified (HNOC) or not covered by GHS  
Repeated exposure may cause skin dryness or cracking



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**SECTION 3: SECTION 3: Composition and Information on the Ingredients**

**3.1 Substance**

Hazardous ingredient	Weight-%	CAS No:	Classification	Risk Phrases	REACH Number	Hazard class
Methyl Ethyl Ketone	>99.7%	78-93-3	F, Xi	R11-36-66-67	01-2119457290-43-XXXX	Eye Irrit. 2, H319, STOT SE 3, H336, Flam. Liq. 2, H226, EUH066

**SECTION 4: First Aid Measurements**

**4.1. Description of First Aid Measures:**

**Skin contact** – Remove all contaminated clothing. Wash off with plenty of water.

**Inhalation** – Move the victim to fresh air. If unconscious, place in recovery position and get medical attention immediately. If breathing is stopped, administer artificial respiration.

**Eye contact** – Rinse immediately with plenty of water for at least 15 minutes with the eyelid held wide open. Immediately ensure a physician aid.

**If Swallowed** – Immediately make victim drink plenty of water. After that give active carbon. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Risk of aspiration! Don't give milk or digestible oils. Never give anything by mouth to an unconscious person. Obtain medical care.

**Laxative:** give sodium sulphate.

**4.2. Most important symptoms and effects, both acute and delayed**

**Symptoms and effects of exposure**

**Inhalation**

upper respiratory tract irritation, nose irritation, throat irritation, central nervous system depression, Headache, dizziness, nausea, vomiting, loss of consciousness

**Skin contact**

skin irritation, reddening, itching, pain, in case of prolonged exposure, defatting, dermatitis

**Eye contact**

eye irritation, lacrimation, pain

**Ingestion**

stomachache, nausea, In case of aspiration can cause chemical pneumonia. Death

**4.3. Indication of immediate medical attention and special treatment needed:** No data available

**SECTION 5 : FIRE-FIGHTING MEASURES**

**5.1. Extinguishing media:**

Suitable extinguishing media

extinguishing powder, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, water spray jet, Small fire: sand Unsuitable extinguishing media


solid water stream

**5.2. Special hazards arising from the substance or mixture**

Incomplete combustion products: carbon oxides.

Special hazards of product: Formation of explosive mixtures possible with air. Keep away from sources of ignition.

Cool container with spray water from a safe distance. Vapours are heavier than air and may spread above the ground

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and accumulate in low areas. Protective equipment for firefighting: Self-contained breathing apparatus see also section 8.

### 5.3. Advice for firefighters

Containers exposed to fire or high temperature cool by spraying water from a safe distance. Prevent extinguishing media from entering the sewerage system, surface or ground water system.

Wear self-contained breathing apparatus and full protective clothing.

## SECTION 6: Accidental Release Measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Personal precautions: See section 8.

### 6.2. Environmental precautions

Do not allow contact with soil, surface or ground water. Do not allow to enter sewerage system. Take up with non-combustible liquid-absorbent material and place in approved

### 6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labelled containers for disposal. Note! Risk of ignition and explosion. At large accidental release contact local authorities. Transfer for disposal.

### 6.4. Reference to other sections: For disposal see section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Take measures to avoid substance contact with skin and eyes.

Use only in well-ventilated areas, mechanical exhaust ventilation or point-exhausting device may be necessary.

Electrically ground all equipment (explosion-proof) when handling this product and use only non-sparking tools.

Do not empty into drains.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from direct sunlight. Keep away from heat, flame sparks and other ignition sources. Do not smoke.

### 7.3. Specific end uses

No data available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits AFS 2005	17 Sweden	NGV 8hrs	50 ppm, 150 mg/m <sup>3</sup>
		TGV 15min	100 ppm, 300 mg/m <sup>3</sup>

General information	The product should be handled with the care usual when dealing with chemicals. Keep eye-wash available on working place. Keep away from sources of ignition. Take measures to prevent electrostatic charging. Use only in well-ventilated areas
Respiratory protection	A full face piece or a half mask equipped for organic vapours /mists or a self-contained breathing apparatus can be needed
Eye protection	Chemical goggles
Hand protection	Protective gloves
Clothes	Avoid skin contact. Use protective clothing



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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

Appearance	Colorless liquid with a fruit-like odor
Boiling point	73.4°C
Vapour pressure	105 hPa (20 °C)
Flash point	-9° C
Relative density	805 kg/ m <sup>3</sup>
Solubility in water	292 g/l (20 °C)
Explosion limits	1,8 – 11,5%
pH	5,5 (300 g/l 20 °C)
Molecular mass	72, g/mole
Ignition temperature	404 °C (759F)
Vapour density	2,5
logP(o/w):	0,29
Viscosity	0,42 mPas
Evaporation rate	2.7(Ether=1)
Refractive index at 20°C	1.379

**9.2. Other Information**


Not available

**SECTION 10: STABILITY AND REACTIVITY**

Conditions to be avoided	Heating. Exposable with air in vaporous/gaseous state
Materials to avoid	Avoid strong oxidizing agents and alkali salts
Hazardous decomposition products	May form peroxides

**SECTION 11: TOXICOLOGICAL**

Acute toxicity	LD50 (oral rat): 2737 mg/kg LD50 (skin rabbit): >6480 mg/kg LC50 (inhalation rat): 23500 mg/m <sup>3</sup> /8-hr
Inhalation	Inhalation may cause headache, indisposition, dizziness and at higher concentrations vomiting and coma. Narcotic effect
Skin contact	Drying-out effect resulting in chapped skin. Prolonged or repeated contact may cause eczema
Eye contact	The vapours may be irritating
Ingestion	Indisposition, vomiting. Risk of pulmonary edema (aspiration)
Further data	An embryotoxic effect needs not to be feared when the threshold limit value is observed. Not mutagenic according to Ames-test

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### SECTION 12: ECOLOGICAL INFORMATION

Biologic accumulation	Not bioaccumulative, logP(o/w) = 0,29
Biologic degradation	Readily degradable. Risk of formation of explosive vapours above water surface
Ecotoxic effects	Fish LC50/96h: 3220 mg/l (Pimephales promelas). Daphnia Magna EC50/48h: >5091 mg/l. Sc. Quadricauda IC5/27d: >4300 mg/l. Putida EC5/16h: 1150 mg/l

### SECTION 13: DIOSPOSAL AND TREATMENT CONSIDERATIONS

**Disposal in compliance with official regulations. Always contact a permitted waste disposer to assure compliance. Do not allow entering the sewage system. EWC-code: 16 05 08**

### SECTION 14: TRANSPORT INFORMATION

Land transport ADR/RID	UN-No: 1193 Proper shipping name: Methyl Ethyl Ketone Class: 3 Packaging group: II Classification code: F1
Sea transport IMDG	UN-No: 1193 Proper shipping name: Methyl Ethyl Ketone IMO-class: 3 Subsidiary risk: - EmsS No: F-E, S-d Packaging group: II Marine pollutant: No
Air transport ICAO/IATA	: UM-No: 1193 Proper shipping name: Methyl Ethyl Ketone Class: 3 Subsidiary risk: - Packaging group: II
According to existing regulations	ADR/ADR-S SRVFS 2004:14 RID/RID-S SRVFS 2004:15 IMDG-koden amdt 32-04 DGR 47 <sup>th</sup> Edition

### SECTION 15: REGULATORY INFORMATION

Risk Phrases	F Highly flammable      Xi Irritant R11 Highly flammable. R36 Irritating to eyes. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness
Safety Phrases	S9 Keep container in a well ventilated place.



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S16 Keep away from sources of ignition – No smoking

**SECTION 16: ADDITIONAL INFORMATION**

Explanation to R-phrases in section 15:R11 Highly flammable.

R36 Irritating to eyes.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness

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