



## **4 FIRST-AID MEASURES**

### **GENERAL INFORMATION**

NOTE! Keep affected person away from heat, sparks and flames! Get medical attention if any discomfort continues.

### **INHALATION**

Move the exposed person to fresh air at once. For breathing difficulties oxygen may be necessary. If breathing stops, provide artificial respiration. Keep the affected person warm and at rest. Get prompt medical attention.

### **INGESTION**

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Remove victim immediately from source of exposure. Rinse mouth thoroughly. Provide rest, warmth and fresh air. Get medical attention immediately! If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

### **SKIN CONTACT**

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing.

### **EYE CONTACT**

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids.

Continue to rinse for at least 15 minutes and get medical attention.

## **5 FIRE-FIGHTING MEASURES**

### **EXTINGUISHING MEDIA**

Fire can be extinguished using: Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemicals, Water spray

### **SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE**

Carbon Oxides

Flash back possible over a considerable distance. Container explosion may occur under fire conditions

### **ADVICE FOR FIRE FIGHTERS**

Wear self-contained breathing apparatus for firefighting if necessary.

### **FURTHER INFORMATION**

Use water spray to cool unopened containers.

## **6 ACCIDENTAL RELEASE MEASURES**

### **PERSONAL PRECAUTIONS**

Wear suitable protective clothing as specified under section 8 of this safety data sheet.

Avoid breathing vapours mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### **SPILL CLEAN UP METHODS**

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Clean-up personnel should use respiratory and/or liquid contact protection. Stop leak if possible without risk. Small Spillages let evaporate. Keep out of confined spaces because of explosion risk. Large Spillages Absorb in vermiculite, dry sand or earth and place into containers.

## 7 HANDLING AND STORAGE

### USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Use explosion proof electric equipment.

### STORAGE PRECAUTIONS

Flammable/combustible - Keep away from oxidisers, heat and flames. Store in tightly closed original container in a cool, dry well-ventilated place. Keep in original container. Ground container and transfer equipment to eliminate static electric sparks.

### STORAGE CLASS

Flammable liquid storage.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	LT – ppm	LT - mg/m3	ST - ppm	ST mg/m3
ETHYL METHYL KETONE (METHYL ETHYL KETONE)	OES	200 ppm(Sk)	600 mg/m3(Sk)	300 ppm(Sk)	899mg/m3(Sk)

### INGREDIENT COMMENTS

OES = Occupational Exposure Standard.

### PROTECTIVE EQUIPMENT



### ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation. Explosion-proof general and local exhaust ventilation.

### RESPIRATORY EQUIPMENT

Respiratory protection must be used if air contamination exceeds acceptable level. Chemical respirator with organic vapour cartridge Type ABEK (EN 14387).

### HAND PROTECTION

Use protective gloves. Use Butyl rubber minimum 0.3mm layer thickness protective gloves under specification of EU directive 89/686/EEC and the standard EN 374 derived from it.

### EYE PROTECTION

Use approved safety goggles or face shield (EN 166(EU))

### OTHER PROTECTION

Use engineering controls to reduce air contamination to permissible exposure level. Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

### HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid
COLOUR	Colourless
ODOUR	
VOLATILITY DESCRIPTION	Highly volatile.
SOLUBILITY	Slightly soluble in water. Soluble in Organic solvents
MOL. WEIGHT	72.12
BOILING POINT (°C)	79 760 mm Hg
MELTING POINT (°C)	-87°C
RELATIVE DENSITY	0.81
VAPOUR DENSITY (air=1)	2.49
VAPOUR PRESSURE @ 20 °c	95 hPa
VOLATILE BY VOL. (%)	100
FLASH POINT (°C)	-3
FLASH POINT (°C)	TCC (Tag closed cup).

## 10 STABILITY AND REACTIVITY

### STABILITY

Stable under normal temperature conditions.

### CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidisers.

### MATERIALS TO AVOID

TRICHLOROMETHANE, CHLOROSULPHONIC ACID, HYDROGEN PEROXIDE, NITRIC ACID, OLEUM, POTASSIUM-tert-BUTOXIDE.  
Strong oxidising substances. Amines.

### HAZARDOUS DECOMPOSITION PRODUCTS

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## 11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 3400 mg/kg (oral rat)

### GENERAL INFORMATION

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

### INHALATION

Exposure to organic solvent vapours in excess of the stated occupational exposure limit may result in adverse effects such as irritation of the mucous membrane and the respiratory system and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

### INGESTION

May cause discomfort if swallowed. May cause stomach pain or vomiting. Drowsiness, dizziness, disorientation, vertigo.

### SKIN CONTACT

Acts as a defatting agent on skin. May cause cracking of skin, and eczema. Prolonged or repeated exposure may cause severe irritation.

### EYE CONTACT

Irritating to eyes

**ROUTE OF ENTRY**

Inhalation. Ingestion. Skin and/or eye contact.

**TARGET ORGANS**

Respiratory system, lungs.

**MEDICAL SYMPTOMS**

High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

**12 ECOLOGICAL INFORMATION**

Ecotoxicity: Ecotoxicity in water (LC50): 3220 mg/l 96 hours [Fathead Minnow]. 1690 mg/l 96 hours [Bluegill]

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

**13 DISPOSAL CONSIDERATIONS**

**DISPOSAL METHODS**

Dispose of waste and residues in accordance with local authority requirements.

**14 TRANSPORT INFORMATION**



UK ROAD CLASS	3
PROPER SHIPPING NAME	ETHYL METHYL KETONE (METHYL ETHYL KETONE)
UN NO. ROAD	1193
UK ROAD PACK GR	II
ADR CLASS NO.	3
ADR CLASS	Class 3: Flammable liquids.
ADR PACK GROUP	3(b)
HAZARD No. (ADR)	33
ADR LABEL NO.	3
HAZCHEM CODE	2YE
CEFIC TEC(R) NO.	30G30
RID CLASS NO.	3
RID PACK GROUP	3(b)
UN NO. SEA	1193
IMDG CLASS	3
IMDG PAGE NO.	3230
IMDG PACK GR.	II
EMS	3-06
MFAG	See Guide

MARINE POLLUTANT  
UN NO. AIR  
ICAO CLASS  
AIR PACK GR.

No.  
1193  
3  
II

## 15 REGULATORY INFORMATION

### LABELLING



Signal word:

DANGER

## 16 OTHER INFORMATION

EUH066	Repeated exposure may cause skin dryness and cracking
Eye Irrit.	Eye Irritation
Flam. Liq.	Flammable liquids
H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation
H336	May cause drowsiness

### Risk Phases

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.