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## **SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Methyl Ethyl Ketone

Product code : S2113

CAS-No. : 78-93-3

Synonyms : butan-2-one, Ethyl methyl ketone, MEK

Manufacturer or supplier's details

Manufacturer/Supplier : Shell CAPSA

Av. Roque Saenz Peña 788

Buenos Aires, 1383

Argentina

Telephone : (+54 11) 4130-2168

Telefax : (+54 11) 4130-2180

Emergency telephone number : En Argentina: (+11 15) 4970-7391 / 4970-7390 / 5062-6601 /

4973-7368; Desde el exterior: (+54 911) 4970-7391 / 4970-7390 / 5062/6601 / 4973-7368; Teléfono de Emergencia Médica (+54) 11962-6666 / 4962-2247 Centro de Toxicologia Hospital Ricardo Gutiérrez - Ciudad Autónoma de Buenos Aires

(Atentión 24 hrs.)

Recommended use of the chemical and restrictions on use

Recommended use : Use only in industrial processes.

Restrictions on use : This product must not be used in applications other than the

above without first seeking the advice of the supplier.

## **SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification** 

Flammable liquids : Category 2

Acute toxicity (Oral) : Category 5

Aspiration hazard : Category 2

Eye irritation : Category 2A

Specific target organ toxicity -

single exposure

: Category 3 (Central nervous system, Narcotic effects)

**GHS Label element** 

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Hazard pictograms







Signal word : Danger

Hazard statements : PHYSICAL HAZARDS:

H225 Highly flammable liquid and vapour.

**HEALTH HAZARDS:** 

H303 May be harmful if swallowed.

H305 May be harmful if swallowed and enters airways.

H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

**ENVIRONMENTAL HAZARDS:** 

Not classified as an environmental hazard under GHS criteria.

Precautionary statements

#### Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ 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.

Dannana

# Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P370 + P378 In case of fire: Use appropriate media to extinguish.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P331 Do NOT induce vomiting.

### Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P235 Keep cool.

P405 Store locked up.

#### Disposal:

P501 Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

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#### Other hazards which do not result in classification

Vapours are heavier than air. Vapours may travel across the ground and reach remote ignition sources causing a flashback fire danger.

Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.

If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.

Exposure may enhance the toxicity of other materials.

See Chapter 11 for details.

Repeated exposure may cause skin dryness or cracking.

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

#### **Hazardous components**

Chemical Name	CAS-No.	Classification	Concentration [%]
Methyl ethyl ketone	78-93-3	Flam. Liq.2; H225 Acute Tox.5; H303 Asp. Tox.2; H305 Eye Irrit.2A; H319 STOT SE3; H336	100

For explanation of abbreviations see section 16.

#### **SECTION 4. FIRST-AID MEASURES**

General advice : DO NOT DELAY.

Keep victim calm. Obtain medical treatment immediately.

If inhaled : Remove to fresh air. If rapid recovery does not occur,

transport to nearest medical facility for additional treatment.

In case of skin contact : Remove contaminated clothing. Flush exposed area with wa-

ter and follow by washing with soap if available.

If persistent irritation occurs, obtain medical attention.

In case of eye contact : Immediately flush eyes with large amounts of water for at least

15 minutes while holding eyelids open. Transport to the near-

est medical facility for additional treatment.

If swallowed : If swallowed, do not induce vomiting: transport to nearest

medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

Most important symptoms : If material enters lungs, signs and symptoms may include

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and effects, both acute and delayed

coughing, choking, wheezing, difficulty in breathing, chest

congestion, shortness of breath, and/or fever.

Defatting dermatitis signs and symptoms may include a burn-

ing sensation and/or a dried/cracked appearance.

Eye irritation signs and symptoms may include a burning sen-

sation, redness, swelling, and/or blurred vision.

Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, lightheadedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and

death.

Protection of first-aiders : When administering first aid, ensure that you are wearing the

appropriate personal protective equipment according to the

incident, injury and surroundings.

Notes to physician : Potential for chemical pneumonitis. Consider: gastric lavage

with protected airway, administration of activated charcoal.

Call a doctor or poison control center for guidance.

#### **SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media : Alcohol-resistant foam, water spray or fog. Dry chemical pow-

der, carbon dioxide, sand or earth may be used for small fires

only.

Unsuitable extinguishing

media

: None

Specific hazards during fire-

fighting

: The vapour is heavier than air, spreads along the ground and

distant ignition is possible.

Carbon monoxide may be evolved if incomplete combustion

occurs.

Specific extinguishing meth-

ods

Standard procedure for chemical fires.

Clear fire area of all non-emergency personnel. Keep adjacent containers cool by spraying with water.

Special protective equipment

for firefighters

Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained

Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to

relevant Standards (e.g. Europe: EN469).

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Observe the relevant local and international regulations Notify authorities if any exposure to the general public or the

environment occurs or is likely to occur.

Local authorities should be advised if significant spillages

cannot be contained.

The vapour is heavier than air, spreads along the ground and

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distant ignition is possible.

Vapour may form an explosive mixture with air. Avoid contact with skin, eyes and clothing.

Isolate hazard area and deny entry to unnecessary or unpro-

tected personnel.

Stay upwind and keep out of low areas.

**Environmental precautions** 

Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Ventilate contaminated area thoroughly. Monitor area with combustible gas indicator.

Methods and materials for containment and cleaning up : For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely Remove contaminated soil and dispose of safely.

Additional advice

For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet.

For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

### **SECTION 7. HANDLING AND STORAGE**

**General Precautions** 

: Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet.

Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this

Ensure that all local regulations regarding handling and storage facilities are followed.

Advice on protection against fire and explosion

: Bulk storage tanks should be diked (bunded). Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equip-

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ment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Do NOT use compressed air for filling, discharging, or handling operations.

Advice on safe handling : Avoid contact with skin, eyes and clothing.

Use local exhaust ventilation if there is risk of inhalation of

vapours, mists or aerosols.

Avoidance of contact : Strong oxidising agents.

Advice on protection against fire and explosion

Bulk storage tanks should be diked (bunded). Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Do NOT use compressed air for filling, discharging, or handling

operations.

Product Transfer : Refer to guidance under Handling section.

**Storage** 

Conditions for safe storage : The vapour is heavier than air. Beware of accumulation in pits

and confined spaces.

Refer to section 15 for any additional specific legislation cov-

ering the packaging and storage of this product.

Packaging material : Suitable material: For containers, or container linings use mild

steel, stainless steel.

Unsuitable material: Natural, butyl, neoprene or nitrile rubbers.

Container Advice : Containers, even those that have been emptied, can contain

explosive vapours. Do not cut, drill, grind, weld or perform

similar operations on or near containers.

Specific use(s) : Not applicable

Ensure that all local regulations regarding handling and stor-

age facilities are followed.

See additional references that provide safe handling practices: American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practices

on Static Electricity).

CENELEC CLC/TR 50404 (Electrostatics - Code of practice

for the avoidance of hazards due to static electricity).

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#### SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Methyl ethyl ketone	78-93-3	CMP	200 ppm	AR OEL
	Further information: Biological Exposure Index (BEI), Irritation, Central nervous system			
		CMP - CPT	300 ppm	AR OEL
	Further information: Biological Exposure Index (BEI), Irritation,			
	Central nervous system			

#### **Biological occupational exposure limits**

Components	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentration	Basis
Methyl ethyl ketone	78-93-3	MEK	Urine	at the end of the shift	2 mg/l	AR BEI

## **Monitoring Methods**

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany http://www.dguv.de/inhalt/index.isp

L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

# **Engineering measures**

: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:

Use sealed systems as far as possible.

Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.

Local exhaust ventilation is recommended.

Firewater monitors and deluge systems are recommended.

Eye washes and showers for emergency use.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

Always observe good personal hygiene measures, such as

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washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

## Personal protective equipment

Respiratory protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.

If air-filtering respirators are suitable for conditions of use: Select a filter suitable for organic gases and vapours [boiling point >65 °C (149 °F)].

Hand protection Remarks

: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. Longer term protection: Butyl rubber. Nitrile rubber. Incidental contact/Splash protection: PVC or neoprene rubber gloves. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical

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> resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

: Wear goggles for use against liquids and gas. Eye protection

Wear full face shield if splashes are likely to occur.

Skin and body protection : Wear antistatic and flame retardant clothing if a local risk

assessment deems it so.

Skin protection is not required under normal conditions of

use.

For prolonged or repeated exposures use impervious clothing

over parts of the body subject to exposure.

If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to relevant Stand-

ard, and provide employee skin care programmes.

Thermal hazards : Not applicable

Protective measures : Personal protective equipment (PPE) should meet recom-

mended national standards. Check with PPE suppliers.

Hygiene measures : Wash hands before eating, drinking, smoking and using the

Launder contaminated clothing before re-use.

#### **Environmental exposure controls**

General advice : Local guidelines on emission limits for volatile substances

must be observed for the discharge of exhaust air containing

Minimise release to the environment. An environmental assessment must be made to ensure compliance with local envi-

ronmental legislation.

Information on accidental release measures are to be found in

section 6.

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance** : Liquid.

Colour clear

Odour characteristic

Odour Threshold Data not available

: Not applicable pΗ

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Melting point/freezing point : -86 °C / -123 °F

Boiling point/boiling range : 79,5 °C / 175,1 °F

Flash point : -9 °C / 16 °F

Evaporation rate : 3,3

Method: DIN 53170, di-ethyl ether=1

Flammability (solid, gas) : Not applicable

Upper explosion limit : upper flammability limit

11,5 %(V)

Lower explosion limit : lower flammability limit

1,8 %(V)

Vapour pressure : 12,600 Pa (20 °C / 68 °F)

Relative vapour density : 2,4 (20 °C / 68 °F)

Relative density : 804 - 806 (20 °C / 68 °F)

Method: ASTM D4052

Density : 804 - 806 kg/m3 (20 °C / 68 °F)Method: ASTM D4052

Solubility(ies)

Water solubility : 250 g/l Miscible. (20 °C / 68 °F

)

Partition coefficient: n-

octanol/water

: log Pow: 0,3

Auto-ignition temperature : 515 °C / 959 °F

Decomposition temperature : no data available

Viscosity

Viscosity, dynamic : 0,42 mPa.s (20 °C / 68 °F)

Viscosity, kinematic : Data not available

Explosive properties : Not applicable

Oxidizing properties : Data not available

Surface tension : 24.8 mN/m,  $20 ^{\circ}\text{C} / 68 ^{\circ}\text{F}$ 

Conductivity: > 10 000 pS/m, A number of factors,

for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid, This material is not expected to be a static accumu-

lator.

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Molecular weight : 72,11 g/mol

#### **SECTION 10. STABILITY AND REACTIVITY**

: The product does not pose any further reactivity hazards in Reactivity

addition to those listed in the following sub-paragraph.

Chemical stability : No hazardous reaction is expected when handled and stored

according to provisions

Possibility of hazardous reac-

tions

: Reacts with strong oxidising agents.

Conditions to avoid : Avoid heat, sparks, open flames and other ignition sources.

Prevent vapour accumulation.

In certain circumstances product can ignite due to static elec-

tricity.

Incompatible materials Strong oxidising agents.

Hazardous decomposition

products

Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degra-

dation.

### **SECTION 11. TOXICOLOGICAL INFORMATION**

Basis for assessment : Information given is based on product testing.

exposure

Information on likely routes of : Exposure may occur via inhalation, ingestion, skin absorption,

skin or eye contact, and accidental ingestion.

**Acute toxicity** 

**Product:** 

Acute oral toxicity : LD50 (Rat): >2000 - <= 5000 mg/kg

Remarks: May be harmful if swallowed.

Acute inhalation toxicity : LC50: 5000 ppm

Remarks: Low toxicity:

: LD50 (Rabbit): > 5.000 mg/kg Acute dermal toxicity

Remarks: Low toxicity:

Skin corrosion/irritation

**Product:** 

Remarks: Not irritating to skin.

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## Serious eye damage/eye irritation

#### **Product:**

Remarks: Causes serious eye irritation.

## Respiratory or skin sensitisation

#### **Product:**

Remarks: Not expected to be a sensitiser.

## Germ cell mutagenicity

## **Product:**

Genotoxicity in vivo : Remarks: Not mutagenic.

## Carcinogenicity

## **Product:**

Remarks: Not expected to be carcinogenic.

Material	GHS/CLP Carcinogenicity Classification
Methyl ethyl ketone	No carcinogenicity classification.

## Reproductive toxicity

# **Product:**

Effects on fertility

Remarks: Not expected to impair fertility.

Not a developmental toxicant.

## STOT - single exposure

#### **Product:**

Remarks: May cause drowsiness and dizziness.

## STOT - repeated exposure

# **Product:**

Remarks: Low systemic toxicity on repeated exposure. Repeated exposure may cause skin dryness or cracking.

## **Aspiration toxicity**

## **Product:**

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

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#### **Further information**

**Product:** 

Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

#### **SECTION 12. ECOLOGICAL INFORMATION**

Basis for assessment : Information given is based on product testing.

**Ecotoxicity** 

**Product:** 

Toxicity to fish (Acute toxici-

ty)

Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to crustacean (Acute

toxicity)

Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic

plants (Acute toxicity)

Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic tox-

icity)

: Remarks: Data not available

Toxicity to crustacean

(Chronic toxicity)

: Remarks: Data not available

Toxicity to microorganisms

(Acute toxicity)

: Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

## Persistence and degradability

**Product:** 

Biodegradability : Remarks: Readily biodegradable.

Oxidises rapidly by photo-chemical reactions in air.

**Bioaccumulative potential** 

**Product:** 

Bioaccumulation : Remarks: Not expected to bioaccumulate significantly.

Partition coefficient: n-

octanol/water

: log Pow: 0,3

Mobility in soil

**Product:** 

Mobility : Remarks: Dissolves in water.

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#### Other adverse effects

**Product:** 

Additional ecological infor-

mation

: Not expected to have ozone depletion potential.

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods** 

Waste from residues : Recover or recycle if possible.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal meth-

ods in compliance with applicable regulations.

Do not dispose into the environment, in drains or in water

courses

Waste product should not be allowed to contaminate soil or

water.

Disposal should be in accordance with applicable regional,

national, and local laws and regulations.

Local regulations may be more stringent than regional or na-

tional requirements and must be complied with.

Contaminated packaging : Drain container thoroughly.

After draining, vent in a safe place away from sparks and fire.

Residues may cause an explosion hazard. Do not, puncture, cut, or weld uncleaned drums. Send to drum recoverer or metal reclaimer.

#### **SECTION 14. TRANSPORT INFORMATION**

## **International Regulation**

ADR

UN number : 1193

Proper shipping name : ETHYL METHYL KETONE, (METHYL ETHYL KETONE)

Class : 3
Packing group : II
Labels : 3
Hazard Identification Number : 33
Environmentally hazardous : no

IATA-DGR

UN/ID No. : UN 1193

Proper shipping name : METHYL ETHYL KETONE

Class : 3
Packing group : II
Labels : 3

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**IMDG-Code** 

UN number : UN 1193

Proper shipping name : ETHYL METHYL KETONE, (METHYL ETHYL KETONE)

Class : 3
Packing group : II
Labels : 3
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category : Z Ship type : 3

Product name : Methyl ethyl ketone

Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage,

for special precautions which a user needs to be aware of or

needs to comply with in connection with transport.

**Additional Information**: This product may be transported under nitrogen blanketing.

Nitrogen is an odourless and invisible gas. Exposure to nitrogen may cause asphyxiation or death. Personnel must observe strict safety precautions when involved with a confined

space entry.

### **SECTION 15. REGULATORY INFORMATION**

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

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

The components of this product are reported in the following inventories:

AICS : Listed

DSL : Listed

IECSC : Listed

KECI : Listed

PICCS : Listed

EINECS : Listed

TSCA : Listed

#### **SECTION 16. OTHER INFORMATION**

#### **Full text of H-Statements**

H225 Highly flammable liquid and vapour.

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H303 May be harmful if swallowed.

H305 May be harmful if swallowed and enters airways.

H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

#### Full text of other abbreviations

Acute Tox. Acute toxicity
Asp. Tox. Aspiration hazard
Eye Irrit. Eye irritation
Flam. Liq. Flammable liquids

STOT SE Specific target organ toxicity - single exposure

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this docu-

ment can be looked up in reference literature (e.g. scientific

dictionaries) and/or websites.

#### **Further information**

Training advice : Provide adequate information, instruction and training for op-

erators.

Other information : A vertical bar (|) in the left margin indicates an amendment

from the previous version.

Sources of key data used to compile the Safety Data

Sheet

The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU

IUCLID date base, EC 1272 regulation, etc).

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.