Prepared according to the regulation on Safety Data Sheets regarding Hazardous substances and mixtures (R.G. 13/12/2014-29204).

# **Methyl Isobutyl Ketone**

Initial release date: 18.12.2002 Revision Date: 02.06.2015

Version 2.1

MSDS Number: 800001033919

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

1.1 Product identifier

Trade name : Methyl Isobutyl Ketone

Product code : S1215

Synonyms : 4-methyl-2-pentanone, Hexanone, Hexanone, MIBK

CAS-No. : 108-10-1

Index-No. : 606-004-00-4

EC-No. : 203-550-1

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

Use of the Sub- : Use only in industrial processes.

stance/Mixture

on use

Recommended restrictions : This product must not be used in applications other than the

above without first seeking the advice of the supplier.

1.3 Details of the supplier of the safety data sheet

Company : Shell Chemicals Europe B.V.

PO Box 2334

3000 CH Rotterdam

Netherlands

Telephone : +31 (0)10 441 5137 / +31 (0)10 441 5191

Telefax : +31 (0)20 716 8316/ +31 (0)20 713 9230

E-mail address of person

responsible for the SDS

: sccmsds@shell.com

1.4 Emergency telephone number

Emergency telephone num- : +44 (0) 1235 239 670

ber

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification T.R. SEA No 28848

Flammable liquids, Category 2 H225: Highly flammable liquid and vapour.

Eye irritation, Category 2 H319: Causes serious eye irritation.

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Acute toxicity, Category 4 H332: Harmful if inhaled.

Specific target organ toxicity - single exposure, Category 3, Respiratory Tract

H335: May cause respiratory irritation.

Supplemental Hazard Statements EUH066: Repeated exposure may cause skin dry-

ness or cracking.

Classification T.R. SAE No 27092

Highly flammable R11: Highly flammable.

Harmful R20: Harmful by inhalation.

Irritant R36/37: Irritating to eyes and respiratory system.

R66: Repeated exposure may cause skin dryness

or cracking.

#### 2.2 Label elements

Labelling T.R. SEA No 28848

Hazard pictograms





Signal word : Danger

Hazard statements : PHYSICAL HAZARDS:

H225 Highly flammable liquid and vapour.

**HEALTH HAZARDS:** 

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

**ENVIRONMENTAL HAZARDS:** 

Not classified as environmental hazard

according to CLP criteria.

Supplemental Hazard

Statements

EUH066

Repeated exposure may cause skin dry-

ness or cracking.

Precautionary statements : Prevention:

P210 Keep away from heat, hot surfaces, sparks,

open flames and other ignition sources. No

smoking.

P261 Avoid breathing dust/ fume/ gas/ mist/ va-

pours/spray.

P280 Wear protective gloves/ protective clothing/

eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin

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with water/shower.

P312 Call a POISON CENTER/doctor if you feel

unwell.

Storage:

P403 + P233 Store in a well-ventilated place. Keep con-

tainer tightly closed.

#### 2.3 Other hazards

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 airvapour mixtures can occur.

Exposure may enhance the toxicity of other materials.

See Chapter 11 for details.

Vapours may be irritating to the eye.

## **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Substance name : Methyl Isobutyl Ketone, 108-10-1

Index-No. : 606-004-00-4

## **Hazardous components**

Chemical Name	CAS-No. EC-No. Registration number	T.R. SAE No 27092	T.R. SEA No 28848	Concentration (%)
Methyl isobutyl ketone	108-10-1 203-550-1	F; R11 Xn; R20 Xi; R36/37 R66	Flam. Liq.2; H225 Eye Irrit.2; H319 Acute Tox.4; H332 STOT SE3; H335 EUH066	100

## **SECTION 4: First aid measures**

## 4.1 Description of first aid measures

General advice : Not expected to be a health hazard when used under normal

conditions.

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.

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If inhaled : Remove to fresh air. Do not attempt to rescue the victim un-

> less proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting, or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

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 : Flush eve with copious quantities of water.

If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities

are swallowed, however, get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

**Symptoms** : Defatting dermatitis signs and symptoms may include a burn-

ing sensation and/or a dried/cracked appearance.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

#### **SECTION 5: Firefighting measures**

5.1 Extinguishing media

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

powder, carbon dioxide, sand or earth may be used for small

fires only.

Unsuitable extinguishing

media

: None

5.2 Special hazards arising from the substance or mixture

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.

5.3 Advice for firefighters

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

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

Specific extinguishing me-

thods

: Standard procedure for chemical fires.

Further information

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

### **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : 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

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.

## 6.2 Environmental precautions

**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 bond-

ing and grounding (earthing) all equipment. Ventilate contaminated area thoroughly. Monitor area with combustible gas indicator.

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

Methods for cleaning up : For large liquid spills (> 1

: 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.

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#### 6.4 Reference to other sections

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**

### 7.1 Precautions for safe handling

Technical measures : Avoid breathing of or direct contact with material. Only use in

well ventilated areas. Wash thoroughly after handling. For quidance 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

material.

Ensure that all local regulations regarding handling and sto-

rage facilities are followed.

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.

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 han-

dling operations.

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

toilet. Launder contaminated clothing before re-use.

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

Requirements for storage areas and containers

 The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Refer to section 15 for any additional specific legislation covering 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.

7.3 Specific end use(s)

Specific use(s) : Please refer to Ch16 and/or the annexes for the registered

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uses under REACH.

Ensure that all local regulations regarding handling and storage 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).

## **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

#### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Methyl isobutyl	108-10-1	TWA (8 Hour)	20 ppm	TR OEL
ketone			83 mg/m3	
		STEL 15 min	50 ppm	TR OEL
			208 mg/m3	
		TWA	20 ppm	2000/39/EC
			83 mg/m3	
Further information	Indicative	•		
		STEL	50 ppm	2000/39/EC
			208 mg/m3	
Further information	Indicative			

### **Biological occupational exposure limits**

No biological limit allocated.

#### 8.2 Exposure controls

#### **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 washing hands after handling the ma-

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terial 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

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

Wear full face shield if splashes are likely to occur.

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 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.

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

sessment 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 Standard,

and provide employee skin care programmes.

Respiratory protection : If engineering controls do not maintain airborne concentra-

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tions 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 appropri-

ate 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)].

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

mended national standards. Check with PPE suppliers.

## **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**

#### 9.1 Information on basic physical and chemical properties

**Appearance** : Liquid.

Colour · clear

Odour : characteristic

Odour Threshold : < 100 ppm

pН : Not applicable

Melting point/freezing point : -85 °C

Boiling point/boiling range : 114 - 117 °C

: 14 °C Flash point

Method: Abel

Evaporation rate : 1,6

Method: ASTM D 3539, nBuAc=1

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Flammability (solid, gas) : Not applicable

Upper explosion limit : upper flammability limit

8 %(V)

Lower explosion limit : lower flammability limit

1,3 %(V)

Vapour pressure : 1,900 Pa (20 °C)

Relative vapour density : 3,5 (20 °C)

Relative density : 0,799 - 0,802 (20 °C)

Density : 799 - 802 kg/m3 (20 °C)

Method: ASTM D4052

Solubility(ies)

Water solubility : 20 g/l Data not available (20 °C)

Partition coefficient: n-

octanol/water

: log Pow: 1,31

Auto-ignition temperature : 448 °C

Decomposition temperature : Not applicable

Viscosity

Viscosity, dynamic : Data not available

Viscosity, kinematic : Not applicable

Explosive properties : Not applicable

Oxidizing properties : Data not available

9.2 Other information

Surface tension : Data not available

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.

Molecular weight : Data not available

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## **SECTION 10: Stability and reactivity**

## 10.1 Reactivity

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

## 10.2 Chemical stability

No hazardous reaction is expected when handled and stored according to provisions

## 10.3 Possibility of hazardous reactions

Hazardous reactions : Reacts with strong oxidising agents.

### 10.4 Conditions to avoid

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.

#### 10.5 Incompatible materials

Materials to avoid : Strong oxidising agents.

## 10.6 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 degradation.

## **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

exposure

Information on likely routes of : Inhalation is the primary route of exposure although absorption may occur through skin contact or following accidental

ingestion.

# **Acute toxicity**

Product:

Acute oral toxicity : LD50 (Rat): > 2.000 - <=5.000 mg/kg

Remarks: May be harmful if swallowed.

Acute inhalation toxicity : LC50: >10 - <= 20 mg/l

Remarks: Harmful if inhaled.

Vapours may cause drowsiness and dizziness.

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

Remarks: Low toxicity:

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#### Skin corrosion/irritation

### **Product:**

Remarks: Not irritating to skin.

Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.

### 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 isobutyl ketone	No carcinogenicity classification.

## Reproductive toxicity

### **Product:**

Effects on fertility

Remarks: Does not impair fertility. Not a developmental toxicant.

### STOT - single exposure

# **Product:**

Remarks: May cause respiratory irritation.

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### STOT - repeated exposure

### **Product:**

Remarks: Kidney: caused kidney effects in male rats which are not considered relevant to humans

### **Aspiration toxicity**

#### **Product:**

Not considered an aspiration hazard.

#### **Further information**

#### **Product:**

Remarks: Exposure may enhance the toxicity of other materials.

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

#### **Product:**

Toxicity to fish (Acute toxic-

: Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to daphnia and other : Remarks: Practically non toxic:

aquatic invertebrates (Acute toxicity)

LL/EL/IL50 > 100 mg/l

ity)

Toxicity to algae (Acute toxic- : Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxic- : Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

: Remarks: NOEC/NOEL > 10 - <=100 mg/l

Toxicity to bacteria (Acute

toxicity)

Remarks: Practically non toxic:

LL/EL/IL50 > 100 mg/l

## 12.2 Persistence and degradability

### **Product:**

Biodegradability : Remarks: Readily biodegradable.

Oxidises rapidly by photo-chemical reactions in air.

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### 12.3 Bioaccumulative potential

## **Product:**

Bioaccumulation : Remarks: Does not have the potential to bioaccumulate signif-

icantly.

## 12.4 Mobility in soil

## **Product:**

Mobility : Remarks: Dissolves in water., If the product enters soil, one or

more constituents will or may be mobile and may contaminate

groundwater.

#### 12.5 Results of PBT and vPvB assessment

#### **Product:**

Assessment : The substance does not fulfill all screening criteria for persis-

tence, bioaccumulation and toxicity and hence is not consi-

dered to be PBT or vPvB..

#### 12.6 Other adverse effects

#### **Product:**

tion

Additional ecological informa: Remarks: Not expected to have ozone depletion potential.

# **SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

Product : 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 me-

thods 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.

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## **SECTION 14: Transport information**

#### 14.1 UN number

**ADR** : UN 1245 RID : UN 1245 **IMDG** : UN 1245 **IATA** : UN 1245

# 14.2 UN proper shipping name

**ADR** : METHYL ISOBUTYL KETONE RID : METHYL ISOBUTYL KETONE **IMDG** : METHYL ISOBUTYL KETONE IATA : METHYL ISOBUTYL KETONE

### 14.3 Transport hazard class(es)

**ADR** : 3 RID : 3 **IMDG** : 3 : 3 IATA

## 14.4 Packing group

#### ADR

Packing group : 11 : F1 Classification Code Hazard Identification Number : 33 Labels : 3

#### RID

Packing group : 11 Classification Code : F1 Hazard Identification Number : 33 Labels : 3

### **IMDG**

Packing group : 11 Labels : 3

## IATA

Packing group : 11 Labels : 3

## 14.5 Environmental hazards

## **ADR**

Environmentally hazardous : no

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**RID** 

Environmentally hazardous : no

**IMDG** 

Marine pollutant : no

14.6 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.

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

Pollution category : Z Ship type : 2

Product name : Methyl isobutyl ketone

**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**

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

Other regulations : The regulatory information is not intended to be comprehen-

sive. Other regulations may apply to this material.

Regulations on the health and safety precautions for chemicals in the workplace. Regulations on the fire protection of buildings. Regulations on the prevention of industrial acci-

dents and the reduction of their effects.

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

AICS : Listed

DSL : Listed

IECSC : Listed

ENCS : Listed

KECI : Listed

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PICCS : Listed

EINECS : Listed

TSCA : Listed

### **SECTION 16: Other information**

**SDS Author** 

Name, Surname : Eda Demirer

Address : Shell & Turcas Petrol A.Ş. Derince Tesisleri

Deniz Mah. P.O Cad. 41900 Derince-Kocaeli

Certified Qualification date : 25 May 2015

Certificate number : GBF-1921

**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.

Revision changes: Revised according to regulation on Safety Data Sheets (SDSs) regarding hazardous substances and

mixtures (R.G. 13/12/2014-29204)

Sources of key data used to compile the Safety Data

Compile the Sale

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).

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Prepared according to the regulation on Safety Data Sheets regarding Hazardous substances and mixtures (R.G. 13/12/2014-29204).

# **Methyl Isobutyl Ketone**

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