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Revision No	03
Issue Date	13.05.2020

Prepared in accordance with the Regulation on Safety Data Sheets for Hazardous Substances and Mixtures that is published in the Official Gazette No. 29204 dated 13.12.2014.

Name of the Substance/Mixture : LPG

Date of Preparation : 23.08.2013

Date of rearrangement : 13.05.2020

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## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/DISTRIBUTOR

### 1.1. Identity of the Substance/Mixture

**Product name:** Liquefied Petroleum Gas (LPG) – Mix

**Product type:** Gas/Liquefied gas

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

Used for fuel purposes in houses and industry. Used as; propellant gas in the aerosol industry, fuel in internal combustion engines and cogeneration systems.

### 1.3. Information of the supplier of the safety data sheet

**Company name** : PET GAZ A.Ş.

**Address** : Yeşilköy Neighb. Çaykara St. No:200/1 Dört Yol/HATAY

**Telephone** : 0326 734 27 66

**Fax** : 0326 734 27 81

**E-Mail** : c.kirca@petgaz.com.tr

**Person concerned** : Ahmet Cemre KIRCA

### 1.4. Emergency Telephone Number

For emergency situations:

National Toxicology Consultation Center (UZEM): **114**

Emergency Medical Services: 112

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance and mixture

#### Physical hazards:

Flam. Gas 1	H220
Press. Gas	H280

#### Hazards for health:

Not classified as hazardous according to the GHS criteria.

#### Hazards for environment:

Not classified as hazardous according to the GHS criteria.

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## 2.2. Label Elements

### Hazard Pictograms:



### Warning Statement:

Danger

### Hazard Statements:

**H 220** : Extremely flammable gas.

**H 280** : Contains gas under pressure; may explode if heated.

### Precaution Statements:

General:

**P 102** : Keep out of reach of children.

Prevention

**P 210** : Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

**P 243** : Take precautionary measures against static discharge.

**P 280** : Wear protective gloves/clothing/eye protection/face protection.

Response:

**P 301 + P 312** : IF SWALLOWED: Call National Toxicology Consultation Center (114) or/and doctor.

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

**P370+P378** : In case of fire; Use foam, carbon dioxide, dry powder.

**P 377** : Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

**P 381** : Eliminate all ignition sources if safe to do so.

Storage:

**P 403** : Store in a well-ventilated place.

**P 410 + P 403** : Protect from sunlight. Store in a well-ventilated place.

Disposal:

**P501** : Dispose of the contents/container in accordance with nation regulations.

## 2.3. Other Hazards

Creates an explosive mixture with air at ambient temperature.

It may accumulate in the pit areas where ventilation is insufficient in case of gas leakage due to the

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fact that it is heavier than air.

Intense heating of the LPG tank (bottle) by being exposed to fire and flames may cause the tank (bottle) to explode and the released LPG may inflate and explode by taking oxygen from the environment.

The liquid leak becomes a gas leak by expanding 248 times.

**Eyes:** If the gas under pressure evaporates and contacts with the eyes, there may be cold burns and also serious damages on eyes.

**Skin:** The gas under pressure may evaporate and cause cold burns in case it contacts with the skin.

**Inhalation:** It is asphyxiant. Because it is heavier than air at high concentrations, it can cause asphyxia due to the oxygen insufficiency by substituting the oxygen in the environment. At high concentrations; mild headache, dizziness, drowsiness, etc. on the central nervous system may occur or it may cause a serious narcotic effect as a result of the reduction in the oxygen concentration in the atmosphere. Symptoms of oxygen deficiency is deep and frequent breathing, dizziness, headache, nausea or loss of consciousness.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substances

International Chemical Identification	CAS No	EC No	Chemical Composition	% Cons.	Classification
Petroleum gases, liquefied; Petroleum gas;  [A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C3 through C7 and boiling in the range of approximately -40 °C to 80 °C (-40 °F to 176 °F).]	68476-85-7	270-704-2	Mainly Butane (C <sub>4</sub> H <sub>10</sub> ) and Propane (C <sub>3</sub> H <sub>8</sub> ), and trace amount of other hydrocarbons such as isobutane and propylene (1,3-Butadien content is less than 0.1%).	%100	Flam. Gas 1, H220 Press. Gas, H280

#### 3.2. Mixtures

No application.

### 4. FIRST AID MEASURES

#### 4.1. Explanation of first aid measures

**After inhalation:**

If dizziness, nausea, difficulty in seeing, irritation in the eyes, mouth and throat, remove the victim exposed to LPG breathing to open air and let him rest.

If there is any difficulty in breathing, seek medical attention.

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(LPG-MIX)**

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If the person is not breathing, apply artificial respiration, give oxygen and seek medical attention.

**After ingestion:**

If only the mouth is contaminated, it should be rinsed with water. If swallowed, the victim must be taken to a doctor without being forcibly regurgitated.

**After eye contact:**

Immediately wash with plenty of clean water for at least 15 minutes by keeping the eyelids open. Hot water should not be used.

Cover the eye with a sterile pad.

Contact an eye specialist.

**After skin contact:**

Wash contacted parts immediately with clean warm water. Do not use hot water directly.

Immediately remove the contaminated clothes. As it may be a cold burn, do not forcibly remove the affixed clothes and the like, leave it as it is. Keep away the removed clothes from the ignition sources.

Do not reheat the liquid-contacting extremity rapidly. On the contrary, the heating process must be done slowly.

In important cases, take the patient to a nearby medical center.

**4.2. Acute and important symptoms and effects that can be seen later**

High concentrations can cause central nervous system depression resulting in headache, dizziness and nausea and continued exposure may result in loss of consciousness or death.

**4.3. First signs requiring medical intervention and special treatment****Primary Serious Symptoms:**

Headache, dizziness, numbness, lose control of himself (fainting) and being short of breath (asphyxia).

**Recommendations for first aid personnel:**

In order to enter the area where LPG leakage is present; a full-face protecting, respiratory system supported, head and neck protecting clothes, gloves and protective antistatic shoes should be used against the risks that may arise.

Hard movements in the area where the gas leak has occurred and entering with spark sources (cigarette, mobile phone, torches that are not ex etc.) should be avoided.

**Recommendations for physicians:**

The treatment should generally be symptomatic and it should be directed at relieving the effects. Apply the same treatment for cold burns as the cold bites.

**5. FIREFIGHTING PRECAUTIONS**

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### 5.1. Fire extinguishers

#### Appropriate fire extinguishing materials, methods:

If possible, the gas flow must first be cut off from the valve.

Both in the closed and in atmosphere-open places, first intervention can be done by the dry chemical powder fire extinguisher and also the fire is put out by whelming.

By effectively cooling the LPG tanks (bottles) by pressurized water (with solid or pulverized nozzles, sprinklers), the fire can be extinguished.

Only in closed areas, fire is extinguished by whelming the fire with an CO2 fire extinguisher.

The tank (bottle) should be covered with a fire blanket or a wet cover and the fire should be extinguished by whelming.

#### Inappropriate fire extinguishing materials, methods:

Use of foam is unnecessary. (It is preferred for cooling with pressurized water)

It may be dangerous to extinguish the flame if precautions that will immediately prevent the leakage are not taken.

It is more dangerous not to intervene in other surrounding tanks (bottles) when only a full LPG tank (bottle) is being cooled (because empty tanks with gas phase have a risk of explosion in a shorter time compared to full tanks).

### 5.2. Special hazards caused by the material and the mixture

In case of fire, toxic and effective gases, CO and CO2 formation can be found. Inhalation of such gases is dangerous.

Intense heating of the LPG tank (bottle) by being exposed to fire and flames may cause the tank (bottle) to explode (BLEVE) and the released LPG may inflate and explode by taking oxygen from the environment.

The heated LPG tank's (tube's - except the camping bottle) safety valves open and try to protect the tank (bottle) by releasing the gas and reducing the internal pressure. At this time, the gas released from the safety valve burns from the nearby flames or ignition sources.

If the heated LPG tank (bottle - except the camping bottle) is overturned (upside down) or it is in the opposite position, the liquid will be evacuated from the safety valve, the liquid will pass into the gas state by expanding 248 times and it will both become a bigger flame when it catches up and also make the intervention more difficult. Thus the tanks (bottles) should be kept vertical at all times. Firefighter hooks can be used to keep the overturned LPG tanks upright.

### 5.3. Recommendations for the fire brigade

Care should always be taken to create an escape route during a fire.

It should be intervened by suitably trained and equipped personnel regarding fires in closed areas.

While the personnel intervenes with the fire, they should be protected against the radiant heat via water curtains or behind a water umbrella that is formed by pulverized nozzles.

## 6. ACCIDENTAL RELEASE MEASURES

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

Full face protection, respiratory system supported, head and neck protective clothes, gloves and anti-static boots should be used against risks that may arise. The materials of these clothes must be resistant to heat and fire.

### 6.2. Environmental Measures

#### In case of a gas leakage:

The gas leakage can be cut off from its source by turning the valve off.

In the place where the gas leakage has occurred, a security zone is developed, all the spark sources inside are removed, the electricity inside is turned off from the main switch, the road is closed to traffic and the people inside are taken out of this safety circle.

Concentration of the gas in the environment is distributed by ventilation, sweeping, and pulverized water.

Direction of the wind is controlled. According to the progression of the gas leakage, the electricity of the said region is cut off and the road is closed for traffic.

#### In case of a gas fire:

When intervening the LPG tank (bottle) with water, the firefighting teams should be assisted by creating a safety zone against the explosion in the surrounding.

Contagion to the LPG Tank (bottle): In order to prevent a fire that is around the LPG tank (bottle) ensure and heat the LPG tank (bottle); LPG tank (bottle) should be protected via the methods such as cooling, water curtain, sprinklers etc.

### 6.3. Methods and materials for storage and cleaning up

The places that are contaminated during the liquid leakages are diluted with soil or water and the burning effect is removed. This product has a low flash point and, in the event of a leakage, there is a danger of a serious fire or explosion.

If the leakage is not burning, stop the gas leakage, isolate it from the ignition sources and remove the personnel.

Prevent all static electricity accumulations.

Do not change the position of electrical switches and breakers.

Provide good ventilation.

### 6.4. References to other sections

For personal protection see section 8.

For additional information about the hazards to health see section 11.

For the disposal of wastes see section 13.

## 7. HANDLING AND STORAGE

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### 7.1. Measures for safe handling

#### Technical measures:

Gas discharge (gas free) process should be done before performing any operation on the LPG tank (tank) and the fixed depots. Never perform any welding operation on the LPG tanks (bottles) and fixed depots. Arrange the hot-work work permits.

#### Working Conditions:

Ventilate the places of use well.

Inspection, cleaning and maintenance operations require critical and serious measures and they should only be done by authorized companies and persons.

Smoking is inhibited at the area of use.

Safety and personal protection equipment should be used.

Clothes to be used should be of the type that do not cause static electric.

#### Prevention of Fire and Explosions:

LPG is heavier than air. Therefore, LPG accumulation should be prevented in case of a possible leakage. Gas accumulation points should be designed in order to prevent LPG accumulation.

No tanks (bottles) and pipes consisting of LPG should be heated with naked flame.

#### Investigating the leakages:

Investigation of the leakages should be made with soapy water or special leakage control foams.

#### NEVER USE OPEN FLAMES.

Special gas detectors can be used.

#### Recommendations for use:

Devices using LPG should be suitable for the usage design of LPG. A device designed for the usage of gas phase should never be used in liquid phase, and a device designed for the liquid phase should never be used in the gas phase.

Only LPG-compatible and resistant materials must be used in the installation.

The use of materials that can decompose in LPG such as natural rubber should be avoided.

Hoses produced from appropriate materials (neoprene) should be used. Hoses should often be checked for hardening, cracks, softening and the hoses in such cases must be replaced immediately.

LPG hoses must be changed every 3 years under all conditions.

The length of the hose between the device and the LPG tank (bottle) must not exceed 150 cm.

At the end of use, LPG valves should be turned off.

### 7.2. Conditions for safe storage including the non-conformances

Storage processes should be done according to **TS 1446**.

#### Technical measures:

Electrical and charged materials to be used in the storage processes must be explosion-proof (Ex-Proof).

#### Storage conditions:

LPG tank (bottle) should not be kept at temperatures above 50°C.

There should be no flammable, inflammable or explosive materials that produce fire and sparks

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around the LPG tank (bottle).

There should be no dried grasses, energy lines, pits besides the tanks (bottles) within the safety distance.

It must be stored in well ventilated place.

**Materials to avoid:**

Avoid to have the LPG tank to contact with strong oxidizing materials.

Avoid from static electricity. Static earthing of the installation and the tank should be done.

The place where the LPG tanks are stored must be ventilated against gas leakages.

They should be protected from sunlight. They should be stored in a well ventilated area.

**Packaging Materials:**

Only the pressure vessels designed and manufactured for the storage and transportation of LPG should be used.

**7.3. Specific end-use**

LPG can be used in special industrial and thermal processes and in energy-demanding enterprises and at cold regions.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

NAME	Standart	TWA-8 HOURS		STEL-15 MIN		NOTES
Petroleum gases, liquified	ACGIH	1000 ppm	1750mg/m3	1250 ppm	2180 mg/m3	

<sup>1</sup> ACGIH: American Conference of Industrial Hygienists

<sup>2</sup> TWA: Time Weighted Average

**8.2. Exposure controls**

**Personal Protective Equipments**





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### Appropriate engineering controls:

In order to keep the LPG concentrations below the explosion limits in case of gas leakages at closed or hollow areas, there should be an air discharge system or other technical measures must be taken. Ensure that the eye washing stations and emergency showers are close to the place where the work area is located.

### Personal Protective Measures:

**Protection of the Respiratory System:** Under normal use, no protection is required for possible leakages, but if the leakage size is large and there is not enough oxygen, a full face-shield respiratory mask should be used.

**Protection of hands:** Impermeable gloves should be used for LPG deliveries and leather gloves should be used when handling the tanks (bottles).

**Protection of eyes:** Protective goggles should be used against leakage.

**Protection of skin:** Where necessary, face protectors, antistatic protective clothes and shoes should be used.

### Environmental exposure controls:

In order to prevent the dissemination of gas leakages into the environment, the environment should be controlled by gas detectors.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	:	Liquid under pressure (15 °C and 1 atm) Both liquid and gas phases are colorless.
Odour	:	Although it is normally odorless, it is odorized with special mercaptans in order to be noticed in gas leakages.
Threshold for odour	:	No application.
pH	:	No application.
Melting point/freezing point	:	-153 °C
Initial Boiling point and boiling range	:	-13 °C, -15 °C at 1 atmospheric pressure
Flash point	:	-74 °C
Evaporation rate	:	1 unit of liquid phase LPG at atmospheric pressure is converted in approximately 248 units of gas phase.
Flammability (solid, gas)	:	No application.
Upper/Lower flammability or explosive limits	:	Lower limit (LEL) = % 1,9 Upper limit (UEL) = % 9
Vapour pressure	:	1550 kPa Max (TS 1298 EN ISO4256, TS EN ISO 8973) for bottles. 1430 kPa Max (TS 1298 EN ISO4256, TS EN ISO 8973) for autogas.
Vapour density	:	1,86 kg/m <sup>3</sup> (15 °C)
Relative density	:	0,560 kg/m <sup>3</sup> (Liquid) (15 °C)
Solubility	:	No application.

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Distribution coefficient: n-octanol/water	:	No application.
Auto Ignition Temperature	:	+400 °C
Decomposition Temperature	:	No application.
Viscosity	:	0,121 cp Liquid (20 °C)
Explosive properties	:	No application.
Oxidising properties	:	Not available.

### 9.2. Other information

Miscibility	:	No application.
Solubility in oil	:	No application.
Conductivity	:	No application.
Solubility in Water	:	Very slightly soluble.
Critical pressure	:	39 Bar
Critical temperature	:	135 °C

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity:

There is no known reactive hazard associated with this product.

### 10.2. Chemical stability

Stable under ambient temperature.

### 10.3. Hazardous reactivity possibility

Not polymerized.

### 10.4. Situations to be avoided

Keep away from heat, sparks and static electricity sources. Gas accumulation in low or closed areas should not be allowed. Warning labels on the tank (bottle) should not be removed. Never weld or braze the empty containers.

### 10.5. Materials to be avoided

Strong oxidizers (sodium peroxide, sodium chlorate, dichromate or chromates, fluorine, chlorine, bromine, chromic acid, nitric acid) should not be contacted.

### 10.6. Hazardous decomposition products

As a result of incomplete combustion, dangerous gases containing carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>) develop.

## 11. TOXICOLOGICAL INFORMATION

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## 11.1. Information about the toxic effects

Acute toxic	:	This product has no known toxicological effects. According to available data, it is not classified as acute toxic.
Skin corrosion/irritation	:	Contact with skin may cause cold burns and frost.
Serious eye damages/irritation	:	The liquid product can cause serious damage when contacted with the eye.
Respiratory tract or skin sensitization	:	Inhalation of vapors or mist may cause irritation of the respiratory tract.
Gamet mutagenicity	:	It is not classified as a mutagen.
Carcinogenicity	:	It is not classified as carcinogen.
Reproductive toxicity	:	Not classified as reproductively toxic.
Specific Target Organ Toxicity-single exposure	:	High concentrations can cause central nervous system depression resulting in headache, dizziness and nausea and in case of continued respiration, it may result in loss of consciousness and / or death.
Specific Target Organ Toxicity-repeated exposure	:	High gas concentrations will replace the existing oxygen in the air; loss of consciousness and death can occur suddenly from lack of oxygen. Exposure to very high concentrations of similar materials has been associated with irregular heart rhythms and heart arrest.
Aspiration damage	:	Aspiration is not classified as hazardous.

## 12. ECOLOGICAL INFORMATION

Due to its evaporation, LPG does not cause soil and water pollution.

### 12.1. Toxicity

Has no known effect.

### 12.2. Persistence and degradability

There are no long-term negative effects for the environment.

### 12.3. Bioaccumulation potential

Has no bioaccumulation potential.

### 12.4. Soil mobility

It evaporates immediately from the water and soil surface. Mobility is very low.

### 12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

### 12.6. Other adverse effects

Has no adverse effects according to the known findings.

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## 13. DISPOSAL INFORMATION

### 13.1. Waste treatment methods

Any remaining or unused product in the tank (bottle) should not be tried to be disposed. It must be disposed of by licensed personnel according to the legislation in force.

Tanks (bottles) are in the possession of the distributor company. Empty or unused tanks (bottles) should be returned to the LPG Vendor. Disposal or destruction is within the authority of the distributor company.

Pressurized tanks (bottles) should not be perforated or thrown into fire. Some products may remain in empty containers and may present a fire / explosion hazard as vapor may be present in the container. For this reason, marks or labels on the containers should not be erased. Never weld or braze the empty containers.

## 14. TRANSPORT INFORMATION

### 14.1. UN number

Road (ADR) : UN No. 1965  
 Railway (RID) : UN No. 1965  
 Sea (IMDG) : UN No. 1965  
 Intra-Cont. Water (ADNR) : UN No. 1965  
 Air (IATA) : UN No. 1965

### 14.2. Proper UN shipping name

UN No. 1965 HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. such as mixtures A, A01, A02, A0, A1, B1, B2, B or C

### 14.3. Transport hazard class(es)

Road (ADR) : 2.1  
 Railway (RID) : 2.1  
 Sea (IMDG) : 2.1  
 Intra-Cont. Water (ADNR) : 2.1  
 Air (IATA) : 2.1

### 14.4. Packing group

Road (ADR) : Undefined  
 Railway (RID) : Undefined  
 Sea (IMDG) : Undefined  
 Intra-Cont. Water (ADNR) : Undefined  
 Air (IATA) : Undefined

### 14.5. Environmental hazards

Road (ADR) : Not available  
 Railway (RID) : Not available

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Sea (IMDG) : Not a marine pollutant  
 Intra-Cont. Water (ADNR) : Not available  
 Air (IATA) : Not available

### 14.6. Special precautions for the user

See Chapter 7

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

No data.

## 15. REGULATORY INFORMATION

### 15.1. Safety, health and environmental legislation specific to the substance or the mixture

#### Legislation:

- REGULATION ON THE SAFETY DATA SHEETS FOR SUBSTANCES AND MIXTURES that is published in the Official Gazette No. 29204 dated 13.12.2014.
- REGULATION ON THE CLASSIFICATION, LABELLING AND PACKAGING OF THE SUBSTANCES AND MIXTURES that is published in the Official Gazette No. 28848 dated 11.12.2013.
- REGULATION ON THE PREVENTION AND REDUCING THE EFFECTS OF MAJOR INDUSTRIAL ACCIDENTS that is published in the Official Gazette No. 28867 dated 30.12.2013.
- REGULATION ON THE HEALTH AND SAFETY PRECAUTIONS IN WORKING WITH CHEMICAL SUBSTANCES that is published in the Official Gazette No. 28801 dated 12.08.2013.
- REGULATION ON LIMITATIONS AND PROHIBITION OF HAZARDOUS MATERIALS AND MIXTURES that is published in the Official Gazette No. 27092 dated 26.12.2008.
- REGULATION ON THE TRANSPORTATION OF HAZARDOUS MATERIALS VIA HIGHWAY that is published in the Official Gazette No. 28801 dated 24.10.2013.
- REGULATION ON THE TRANSPORTATION OF HAZARDOUS MATERIALS VIA RAILWAYS that is published in the Official Gazette No. 29418 dated 16.07.2015.
- REGULATION ON THE TRANSPORTATION OF HAZARDOUS MATERIALS VIA SEAWAYS that is published in the Official Gazette No. 29284 dated 03.03.2015.
- REGULATION ON THE CONTROL OF THE POLLUTION CAUSED BY THE HAZARDOUS MATERIALS IN THE WATER AND ITS SURROUNDING that is published in the Official Gazette No. 26005 dated 26.11.2005.
- REGULATION ON THE USE OF PERSONAL PROTECTIVE EQUIPMENT AT THE WORK SITES that is published in the Official Gazette No. 28695 dated 02.07.2013.
- No. 6331 LAW OF OCCUPATIONAL HEALTH AND SAFETY that is published in the Official Gazette No. 28339 dated 30.06.2012.

#### Standards:

TS 2178 : Petroleum products - Fuels (Class F) - Liquefied petroleum gases - Specifications  
 TS EN 589 + A1 : Automotive fuels - LPG - Requirements and test methods  
 TS 2179 : Liquefied petroleum gases (LPG) - Rules for use  
 TS 1445 : Rules of LPG transportation

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TS 1446	: Storage rules of liquefied petroleum gases (LPG)
TS 1449	: Filling and discharge procedures for LPG – Safety requirements
TS EN 13776	: Filling and discharge procedures for LPG road tankers
TS EN 13952	: LPG cylinders - Filling procedures

## 16. OTHER INFORMATION

Due to the amendment of the regulations, all pages have been changed.

### Abbreviations:

**LPG** : Liquefied Petroleum Gases

**Mix** : Mixture

**CAS No** : Chemical Abstract Service number

**EC No** : European Community Number

**UZEM** : National Poison Information Center "Ulusal Zehir Danışma Merkezi"

**GHS** : Globally Harmonized System

**C<sub>3</sub>** : 3 Carbon

**C<sub>7</sub>** : 7 Karbon

**C<sub>4</sub>H<sub>10</sub>** : Butane

**C<sub>3</sub>H<sub>8</sub>** : Propane

**°C** : Degree Centigrade

**°F** : Degree Fahrenheit

**CO** : Carbonmonoxyde

**CO<sub>2</sub>** : Carbondioxyde

**BLEVE** : Boiling Liquid Expanding Vapor Explosion

**Ex-Proof** : Explosion Proof

**NIOSH** : National Institute for Occupational Safety and Health (America)

**TWA** : Time Weighted Average

**IDLH** : Immediately Dangerous to Life and Health (America)

**OSHA** : Occupational Safety and Health Administration (America)

**ppm** : Parts per Million

**mg/m<sup>3</sup>** : Milligrams per Cubic Metre

**LEL** : Lower Explosive Limit

**UEL** : Uper Explosive Limit

**Atm** : Atmosphere

**kPa** : Kilo Pascal

**Max** : Maximum

### Additional Hazard statements:

**H 350** : May cause cancer.

**H 340** : May cause genetic defects.

### Additional Precaution statements:

**P 201** : Obtain special instructions before use.

**SAFETY DATA SHEET  
(LPG-MIX)**

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**P 202** : Do not handle until all safety precautions have been read and understood.

**P 243** : Take precautionary measures against static discharge.

**P 263** : Avoid contact during pregnancy/while nursing.

**P 280** : Wear protective gloves/protective clothing/eye protection/face protection.

**P 281** : Use personal protective equipment as required.

**P 308 + P 313** : IF exposed or concerned: Get medical advice/attention.

**P 405** : Store locked up.

**P 501** : Dispose of contents/container to ....

In order to ensure the protection of human health and the environment, workers should receive Vocational Qualification Training as required by the Regulation on Vocational Trainings to be Taken in Dangerous and Very Hazardous Workplaces and LPG Filling and Unloading Personnel Training given by TMMOB.

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