

This Safety Data Sheet is in accordance with Regulation (EC) No 1907/2006 (REACH).

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

### 1.1 Product Identifier

**Material Name** : Liquefied Petroleum Gases

**CAS No** : 68476-85-7

**EC No** : 270-704-2

**Other Names of Products**: Automotive Fuel LPG, Petroleum gases, liquefied

### 1.2 Details of the supplier of the substance or mixture

**Manufacturer/Supplier**: Tüpraş

**Adress** : Türkiye Petrol Rafinerileri A.Ş. Genel Müdürlüğü KÖRFEZ/ KOCAELİ

**Telephone** : +90 262 316 30 00

**Fax** : +90 262 316 30 10-11

**e-mail** : selcen.temeltopallar@tupras.com.tr  
yasin.ersoz@tupras.com.tr

### 1.3 Emergency Telephone Number

**Company Telephone** : +90 262 316 30 00

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of substance or mixture

Classification According to Regulation (EC) No 1272/2008

Extremely flammable gas, Category 1	H220
Contains gas under pressure; may explode if heated	H280

### 2.2 Label Elements

Labelling According to Regulation (EC) No 1272/2008 (CLP/GHS)



GHS02



GHS04

**Symbols:**

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**Signal Word:** Danger

**Hazard statements: Physical hazards**

**H220** Extremely flammable gas.

**H280** Contains gas under pressure; may explode if heated.

**Precautionary statements:**

**Prevention** : **P201** Obtain special instructions before use

**P210** Keep away from heat/sparks/open flames/hot surfaces - No smoking

**P243** Take precautionary measures against static discharge.

**P281** Use personal protective equipment as required

**P381** In case of leaking gas fire, eliminate all ignition sources if safe to do so.

**Response** : **P377** Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

**P381** Eliminate all ignition sources if safe to do so.

**Storage** : **P410+P403** Protect from sunlight. Store in a well-ventilated place.

**Disposal** : **P501** Dispose of contents and container to appropriate waste site or reclaimed in accordance with local and national regulations.

### 2.3 Other hazards

Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Vapours are heavier than air. Vapours may travel across the ground and reach remote ignition sources causing a flashback fire danger. High gas concentrations will displace available oxygen from the air; unconsciousness and death may occur suddenly from lack of oxygen.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substance

CAS NO	EINECS NO	Chemical Composition	% Conc.	Risk Phrases (Regulation (EC) No 1272/2008)
68476-85-7	270-704-2	Complex mixture of hydrocarbons consisting of C3 and C4 predominantly.	100	Flam. Gas, 1 H220 Gases under pressure, H280



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## SAFETY DATA SHEET LIQUEFIED PETROLEUM GASES

Dok. No : TPR.YPG.SDS.0070  
Yayın Tarihi : 30.10.1998  
Rev. No : 5  
Rev. Tarihi : 24.11.2016  
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### 3.2 Mixtures

Not applicable

## 4. FIRST-AID MEASURES

### 4.1 Description of First Aid Measures

**Inhalation:** Remove to fresh air. If breathing but unconscious, place in the recovery position. If breathing has stopped, apply artificial respiration. If heartbeat absent, give external cardiac compression. Monitor breathing and pulse. Seek urgent medical advice. If symptoms persist obtain medical advice.

**Skin Contact:** Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

**Eye Contact:** Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. If redness, burning, blurred vision, or swelling persist transport to the nearest medical facility for additional treatment.

**Ingestion:** If contamination of the mouth occurs, wash out thoroughly with water. Except as a deliberate act, the ingestion of large amounts of product is unlikely. If it should occur, do not induce vomiting; obtain medical advice.

### 4.2 Most important symptoms/effects, acute & delayed

Harmful if inhaled. May cause genetic defect. High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued exposure may result in unconsciousness and/or death.

### 4.3 Indication of immediate medical attention and special treatment needed

Treat symptomatically. If breathing is laboured, oxygen should be administered by qualified personnel.

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing Media

Use foam, dry powder or carbon dioxide. Do not use water jet.

### 5.2 Special hazards arising from substance or mixture

Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Vapour may create explosive atmosphere. The vapour is heavier than air; beware of pits and confined spaces. Combustion or thermal decomposition will evolve very toxic, irritant and flammable vapours. Hazardous decomposition product(s): Carbon monoxide, Carbon dioxide, A mixture of solid



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and liquid particulates and gases including unidentified organic and inorganic compounds. Product may release Hydrogen Sulphide. Contains gas under pressure; may explode if heated. Sealed containers may rupture explosively if hot. Do not pierce or burn, even after use.

### 5.3 Advice for fire-fighters

For major fires call the Fire Service. Ensure an escape path is always available from any fire. Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus. Vapors may form explosive mixtures with air.

## 6. ACCIDENTAL RELEASE MEASURES

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

Avoid breathing vapor or mist. Provide adequate ventilation. Shut off source of leak if safe to do so. Put on appropriate personal protective equipment. All equipment used when handling the product must be grounded. The vapour is heavier than air; beware of pits and confined spaces. Danger of flashback. Take precautionary measures against static discharge. Do not use sparking tools. Product may release Hydrogen Sulphide: A specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste

### 6.2 Environmental precautions

Prevent from spreading to the environment. Contain the spillage.

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

Only trained and properly protected personnel must be involved in clean-up operations. Take precautionary measures against static discharges. For small liquid spills, contain spillages with sand, earth or any suitable adsorbent material. Allow small spillages to evaporate provided there is adequate ventilation. For large liquid spills, Evacuate area. Fight fire remotely due to the risk of explosion. Notify police and fire brigade as soon as possible.

### 6.4 Reference to other sections

Refer to sections 8 and 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

This product can create a low temperature exposure hazard when released as a liquid. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Avoid prolonged or repeated contact with skin. Electrostatic charges may be generated during handling. Electrostatic discharge may cause fire. Earth all equipment. Use local exhaust



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ventilation if there is risk of inhalation of vapours, mists or aerosols. Product may release Hydrogen Sulphide

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

Must be stored in a well ventilated area, away from sunlight, ignition sources and other sources of heat. Ensure adequate earthing. Do not store near cylinders containing compressed oxygen or other strong oxidizers. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Keep cool.

### 7.3 Specific end use

Except as provided in Section 1.2 is not required to offer any specific suggestions.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Exposure Limits: ACGIH (USA) : 1000 ppm (8 hr TWA)

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Use explosion-proof ventilating equipment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### 8.2.2 Personal protective precautions

##### Personal protective equipment:

Personal protective equipment (PPE) should meet recommended national standards.

**Eyes:** Chemical splash goggles (chemical monogoggles). Don't wear contact lenses.

**Skin:** Protective clothing and gloves should be used.

**Inhalation:** A self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Property	Test Unit	Guarantee	Test Method
Vapour pressure, gauge (40°C) max	kPa	1550	EN ISO 4256 EN ISO 8973
Odour		Distinctive and unpleasant at 20 % Lower flammability limit	

### 9.2 Other Information

No relevant additional information available.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Hazardous combustion products, nitrogen oxides (NO<sub>x</sub>), carbon oxides.

### 10.2 Chemical Stability

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

### 10.3 Possibility of Hazardous Reactions

Product vapors may form explosive mixtures with oxygen.

### 10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition source.

### 10.5 Incompatible materials

Strong oxidising agents.

### 10.6 Hazardous decomposition products

A complex mixture of toxic gases, vapours and carbon oxides will be evolved when this material undergoes combustion or thermal or oxidative degradation.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

This Safety Data Sheet is in accordance with Regulation (EC) No 1907/2006 (REACH).

Information given is based on product data, a knowledge of the components and the toxicology of similar products.

**Acute Oral Toxicity:** Not classified.

**Acute Dermal Toxicity:** Not classified.

**Acute Inhalation Toxicity:** Low toxicity: LC50 (Rat) >31 mg/l, 4 h

**Skin corrosion/irritation:** Not classified.

**Serious eye damage/irritation:** Not classified.

**Respiratory or skin sensitisation:** Not classified.

**Germ cell mutagenicity:** Not classified.

**Carcinogenicity:** Not classified as a carcinogen.

**Reproductive and Developmental Toxicity:** Not classified.

**Specific target organ toxicity - single exposure:** Not classified.

**Specific target organ toxicity - repeated exposure:** Not classified.

## 12. ECOLOGIAL INFORMATION

### 12.1 Toxicity

Toxic to aquatic life with long lasting effects

### 12.2 Persistence and degradability

Expected to be readily biodegradable. Oxidises rapidly by photo-chemical reactions in air.

### 12.3 Bioaccumulative potential

Not expected to bioaccumulate significantly.

### 12.4 Mobility in soil

Spillages are unlikely to penetrate the soil.

### 12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

### 12.6 Other adverse effects

There is no additional information.



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### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

##### Material Disposal:

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 methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

##### Container Disposal:

Send to drum recoverer or metal reclaimer. Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Do not pollute the soil, water or environment with the waste container. Comply with any local recovery or waste disposal regulations.

##### Local Legislation:

Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be in compliance.

### 14. TRANSPORT INFORMATION

#### Land transport (ADR/RID):

14.1 UN Number : 1965

14.2 UN proper shipping name : UN 1965 HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. (LPG)

14.3 Transport hazard class(es) : 2.1

14.4 Packing group : Not applicable





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**14.5 Environmental hazards** : No

**14.6 Special precautions for user** : Refer to Chapter 7

**Sea transport (IMDG Code):**

**14.1 UN Number** : 1965

**14.2 UN proper shipping name** : UN 1965 HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. (LPG)

**14.3 Transport hazard class(es)** : 2.1

**14.4 Packing group** : Not applicable

**14.5 Marine pollutant** : No

**14.6 Special precautions for user** : Refer to Chapter 7

**Air transport (IATA):**

**14.1 UN Number** : 1965

**14.2 UN proper shipping name** : UN 1965 HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. (LPG)

**14.3 Transport hazard class(es)** : 2.1

**14.4 Packing group** : Not applicable

**14.5 Environmental hazards** : No

**14.6 Special precautions for user** : Refer to Chapter 7

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

Not applicable.

**15. REGULATORY INFORMATION**

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

The contents and format of this SDS are in accordance with EEC Commission Directive 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH).

**15.2 National Regulations**

This Safety Data Sheet, Environment and Urban Planning Ministry by December 13, 2014 date and 29204 numbered published in the Official Gazette of Hazardous Substances Regulation on safety data sheets of mixtures' Environment and Forestry and the Ministry of

Bu dokümanın güncelliği, elektronik ortamda M-Files doküman yönetiminden takip edilmektedir.



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26 by December 2008, and 27092 (bis) Official Gazette published "Classification of Hazardous Substances and preparations Regulations on Packaging and Labelling 'base is based.

## 16. OTHER INFORMATION

### 16.1 Other Information

The information presented about health, safety and environment issues in this safety data sheet was given by considering of best knowledge and reliable sources at the date of its preparation. Although maximum effort was shown, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission, recommendation or authorization given or implied to practise any patented invention without a valid licence. The TÜPRAŞ shall not be responsible for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

#### Abbreviations :

ADN: Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route

CLP: Classification, Labelling and Packaging Regulation according to 1272/2008/EC

IMDG: International Maritime Dangerous Goods

IATA: International Air Transport Association

IMDG = International Maritime Dangerous Goods Code

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

*UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials (US EPA)*

TWA: Time weighted average

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STEL: Short-term exposure limit.

## 16.2 Related Person

Competent Person Accreditation no: TSE GBF-A-0-2828