



LPG

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 03/16/2014 Revision date: 02/04/2019 Version: 3.0

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

1.1. Product identifier

Product name : LPG; liquefied petroleum gases
Chemical name : Petroleum gases, liquefied
EC-No. : 270-704-2
CAS-No. : 68476-85-7

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

Relevant identified uses : Used as fuel in industry.
Uses advised against : No data available

1.3. Details of the supplier of the safety data sheet

TP Petrol Dağıtım A.Ş.
Bulgurlu Mahallesi Gürpınar Caddesi No:15/6 Üsküdar / İstanbul - Turkey
Tel: +90 216 481 90 00 - Faks: +90 216 481 99 00
www.tppd.com.tr - info@tppd.com.tr

1.4. Emergency telephone number

Emergency telephone number : +90 444 44 87

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable gases, Category 1 H220
Gases under pressure : Liquefied gas H280

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Contains gas under pressure; may explode if heated. Extremely flammable gas.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS04

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H220 - Extremely flammable gas.
H280 - Contains gas under pressure; may explode if heated.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 - In case of leakage, eliminate all ignition sources.
P403 - Store in a well-ventilated place.
P410+P403 - Protect from sunlight. Store in a well-ventilated place.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
LPG; liquefied petroleum gases	(CAS-No.) 68476-85-7 (EC-No.) 270-704-2 (EC Index-No.) 649-202-00-6	100

3.2. Mixtures

Not applicable



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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
- First-aid measures after skin contact : May cause frostbite on contact with liquefied gas. On frostbite: rinse with plenty of water, do NOT remove clothes.
- First-aid measures after eye contact : Rinse eyes with water as a precaution. Rinse immediately with plenty of water. If eye irritation persists: Get medical advice/attention. May cause frostbite. On frostbite: rinse with plenty of water, do NOT remove clothes.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : Headache, dizziness, nausea.
- Symptoms/effects after skin contact : May cause frostbite.
- Symptoms/effects after eye contact : May cause frostbite.
- Symptoms/effects after ingestion : Nausea, vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam.
- Unsuitable extinguishing media : High volume water jet.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Extremely flammable gas.
- Explosion hazard : Vapours are heavier than air and may spread along floors. Vapours may form explosive mixture with air.
- Hazardous decomposition products in case of fire; : Toxic fumes may be released. Carbon monoxide. Carbon dioxide.

5.3. Advice for firefighters

- Firefighting instructions : Eliminate all ignition sources if safe to do so. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. If fire persists and if possible gas flow should be cut first. If the flow is stopped, wait for the complete controlled burning of the remaining part. If leakage can't be prevented it should be let to burn. If leakage don't burn stop the gas leak, isolate the ignition sources and remove the personnel. Water and water seal should be used for tank cooling processes and ensuring environmental safety. Dike and collect extinguishing water. Keep away all non-emergency personnel from fire area. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Fires in enclosed places should be extinguished by trained personnel wearing protective clothing and an oxygen mask.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Emergency procedures : Wear protective clothing as described in Section 8 of this safety data sheet. Do not smoke, use open fire or other sources of ignition. Provide adequate ventilation. In case of spills, beware of slippery floors and surfaces. If leakage don't burn stop the gas leak, isolate the ignition sources and remove the personnel. Gas should be distributed by using water spray and personnel should be protected who attempt to stop the leakage. Do not approach with open flame or cigarette, portable electrical devices such as battery-operated flashlight, radio, mobile phone when lpg leak is noticed in the environment. Immediately shut the devices in the environment which can cause sparkles. Evacuate the area. Immediately ventilate the area by opening doors and windows when LPG leak is defined in the enclosed environment. Shut off the gas flow by closing LPG cylinders, hood or valves. Continue ventilation until the gas smell is removed in the environment. Keep away from all objects that can cause ignition and sparkles when LPG leak is defined in the open environment. Disable all motor vehicle from entering leak area. Try to shut off the gas flow with a suitable valve. Leak may be prevented from spreading by spraying water with fog nozzle and shielding according to the direction of the wind.

6.2. Environmental precautions

- Environmental precautions : In the event of a leak, this product present severe fire or explosion hazard because of low flash point. If the leaking do not burn, stop the gas leak, isolate from sources of ignition and staff you out. Provide good ventilation. Fluid leaks create bulky, heavier than air, combustible gas mass. May leak into the sewerage network reach to remote ignition sources because it is heavier than air. It should distribute the gas leak using a water spray and staff that tried to stop the leak should be protected. Gas accumulation may be in closed areas.



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Through spilled liquid is completely evaporates, provide adequate ventilation in a confined space and should be entered after the measurement. In order to rescue an oxygen mask and protective clothing must be worn when entering the gas clouds.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Eliminate all ignition sources if safe to do so. Notify authorities if product enters sewers or public waters. Spilled liquid will evaporate completely in enclosed area so that adequate ventilation must be done and should be entered with protective clothing after measurement.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Eliminate all ignition sources if safe to do so. Contact with the product may cause cold burns or frostbite. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Take precautionary measures against static discharge.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Use explosion-proof electrical/ventilating/lighting equipment.
- Storage conditions : Protect against physical damage and/or friction. Protect from heat, sparks and flame. Keep in a cool, well ventilated area. Store away from incompatible materials. It should be stored in tanks designing according to the product. Storage tanks should be labeled and should be kept closed when out of use. Do not remove the warning signs since some products may be present in empty tanks. Despite the possibility of the empty tanks containing product vapor should not be done cutting, welding, soldering processes. There is possibility of ignition vapour of product are collected in the storage tanks. Therefore, static electricity must be discharged. Measures should be taken against the ignition source while filling and discharge. Equipments such as pumps etc. must be earthed or transmission cables must be connected each other by a cable to avoid accumulation of static electricity. Proper distances as per legal regulations must be applied in placement of the external tanks used in housing and industry. Should not be entered into the storage tanks and tanks must be labeled. Warning signs must not be removed from storage tanks.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

LPG; liquefied petroleum gases (68476-85-7)		
United Kingdom	WEL TWA (mg/m ³)	1750 mg/m ³
United Kingdom	WEL TWA (ppm)	1000 ppm
United Kingdom	WEL STEL (mg/m ³)	2180 mg/m ³
United Kingdom	WEL STEL (ppm)	1250 ppm

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Hand protection:

Protective gloves. Standard EN 374 - Protective gloves against chemicals. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer

Eye protection:

Safety glasses with side shields. Standard EN 166 - Personal eye-protection.

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Approved supplied air respirator

Environmental exposure controls:

Avoid release to the environment.



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Liquefied gas.
Colour	: Colourless.
Odour	: Odourless.
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: -100 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Extremely flammable gas.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 545 - 560 kg/m ³ (15 °C)
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Lower explosive limit (LEL)	: 2 g/m ³ Alt Patlama Limiti (LEL)
Upper explosive limit (UEL)	: 9 g/m ³ Üst Patlama Limiti (UEL)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable gas.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

LPG; liquefied petroleum gases (68476-85-7)

LC50 inhalation rat (Vapours - mg/l/4h)	658 mg/l/4h
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Skin corrosion/irritation	: Not classified
Additional information	: Not classified. May cause frostbite.
Serious eye damage/irritation	: Not classified. May cause frostbite.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified



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Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

12.2. Persistence and degradability

LPG; liquefied petroleum gases (68476-85-7)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

LPG; liquefied petroleum gases (68476-85-7)	
Bioaccumulative potential	Not bioaccumulable.

12.4. Mobility in soil

LPG; liquefied petroleum gases (68476-85-7)	
Ecology - soil	Not expected to be mobile in soil.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available






SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods	: Disposal through controlled incineration or authorised waste dump. LPG including containers should not be thrown and all cylindrical vessel or boiler should be returned to the seller. Do not remove the signs or labels since some products may be present in empty containers. Should not be done welding and soldering processes since empty tanks (container, tube, boiler, cylinder) containing ignitable product residue.
European List of Waste (LoW) code	: 16 05 04* - gases in pressure containers (including halons) containing dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1965	1965	1965	1965	1965
14.2. UN proper shipping name				
Hydrocarbon Gas Mixture, Liquefied, N.O.S. such as mixtures A, A01, A02, A0, A1, B1, B2, B or C	Hydrocarbon Gas Mixture, Liquefied, N.O.S. such as mixtures A, A01, A02, A0, A1, B1, B2, B or C	Hydrocarbon Gas Mixture, Liquefied, N.O.S. such as mixtures A, A01, A02, A0, A1, B1, B2, B or C	Hydrocarbon Gas Mixture, Liquefied, N.O.S. such as mixtures A, A01, A02, A0, A1, B1, B2, B or C	Hydrocarbon Gas Mixture, Liquefied, N.O.S. such as mixtures A, A01, A02, A0, A1, B1, B2, B or C
Transport document description				
UN 1965 Hydrocarbon Gas Mixture, Liquefied, N.O.S.	UN 1965 Hydrocarbon Gas Mixture, Liquefied, N.O.S.	UN 1965 Hydrocarbon Gas Mixture, Liquefied, N.O.S.	UN 1965 Hydrocarbon Gas Mixture, Liquefied, N.O.S.	UN 1965 Hydrocarbon Gas Mixture, Liquefied, N.O.S.
14.3. Transport hazard class(es)				
2.1	2.1	2.1	2.1	2.1
				
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No



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14.6. Special precautions for user

- Overland transport

Classification code (ADR)	: 2F
Special provisions (ADR)	: 274, 583, 639, 660, 662
Limited quantities (ADR)	: 0
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P200
Mixed packing provisions (ADR)	: MP9
Portable tank and bulk container instructions (ADR)	: (M), T50
Tank code (ADR)	: PxBN(M)
Tank special provisions (ADR)	: TA4, TT9
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV9, CV10, CV36
Special provisions for carriage - Operation (ADR)	: S2, S20
Hazard identification number (Kemler No.)	: 23
Orange plates	:



Tunnel restriction code (ADR)	: B/D
EAC code	: 2YE

- Transport by sea

Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P200
Tank instructions (IMDG)	: T50
EmS-No. (Fire)	: F-D
EmS-No. (Spillage)	: S-U
Stowage category (IMDG)	: E
Stowage and handling (IMDG)	: SW2

- Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: 200
CAO max net quantity (IATA)	: 150kg
Special provisions (IATA)	: A1
ERG code (IATA)	: 10L

- Inland waterway transport

Classification code (ADN)	: 2F
Special provisions (ADN)	: 274, 583, 639, 660, 662
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

- Rail transport

Special provisions (RID)	: 274, 583, 639, 660, 662
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0



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Packing instructions (RID)	: P200
Mixed packing provisions (RID)	: MP9
Portable tank and bulk container instructions (RID)	: T50(M)
Special provisions for RID tanks (RID)	: TU38, TE22, TA4, TT9, TM6
Transport category (RID)	: 2
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW10, CW36
Colis express (express parcels) (RID)	: CE3
Hazard identification number (RID)	: 23

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) 1, low hazard to waters (Classification according to AwSV; ID No. 714)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : LPG is listed

SZW-lijst van mutagene stoffen : LPG is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No data available

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative



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Full text of H- and EUH-statements:

Flam. Gas 1	Flammable gases, Category 1
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.

Disclaimer of Liability

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