

# SAFETY DATA SHEET

## Propane

Dargan Tools Limited

- According to GHS (Eighth Revised Edition)

# SDS

### Section 1 Product and Company Identification

#### > Product Identifier

**Product Name** Propane  
**UFI No. :-** 3220-OOXX-SOOJ-QMGV  
**CAS No.** 74-98-6  
**EC No.** 200-827-9  
**Molecular Formula** C<sub>3</sub>H<sub>8</sub>

#### > Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

**Relevant Identified Uses** Please consult manufacturer.  
**Uses Advised Against** Please consult manufacturer.

#### > Details of the Supplier of the Safety Data Sheet

**Supplier Name** Dargan Tools Limited  
**Supplier Address** Dolmen Business Park, Tullow Road, Carlow, Ireland  
**Supplier Telephone** +353 (0)59 9142855  
**Supplier Fax** +353 (0)59 9141418  
**Supplier E-mail** sales@dargantools.com

#### > Emergency Phone Number

**Emergency Phone Number** +353 (0)59 9142855

### Section 2 Hazards Identification

Hazard class and label elements of the product according to GHS (the eighth revised edition):

#### > GHS Hazard Class

**Flammable Gases** Category 1A  
**Gases Under Pressure** Liquefied gas

## &gt; GHS Label Elements

## Pictogram



## Signal Word

**Danger**

## &gt; Hazard Statements

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

## &gt; Precautionary Statements

## Prevention

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

## Response

- P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
 P381 In case of leakage, eliminate all ignition sources.

## Storage

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

## Disposal

Not applicable

### Section 3 Composition/Information on Ingredients

Component	Concentration (weight percent, %)	CAS No.	EC No.
Propane	99.6	74-98-6	200-827-9

### Section 4 First Aid Measures

## &gt; Description of First Aid Measures

- General Advice** Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
- Eye Contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
- Skin Contact** Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
- Ingestion** Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
- Inhalation** Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
- Protecting of First-aiders** Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

## &gt; Most Important Symptoms and Effects, both Acute and Delayed

- 1 Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

## &gt; Indication of Any Immediate Medical Attention and Special Treatment Needed

- 1 Treat symptomatically.

- 2 Symptoms may be delayed.

## Section 5 Fire Fighting Measures

### > Extinguishing Media

#### Suitable Extinguishing Media

Dry chemical, carbon dioxide or water spray.

#### Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter or spread fire.

### > Specific Hazards Arising from the Substance or Mixture

- 1 Flammable: will be easily ignited by heat, sparks or flames.
- 2 Will form explosive mixtures with air.
- 3 Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/ or vapour concentration.
- 4 Vapours may travel to source of ignition and flash back.
- 5 Containers may explode when heated.
- 6 Fire exposed containers may vent contents through pressure relief valves.
- 7 May expansion or decompose explosively when heated or involved in fire.

### > Advice for Firefighters

- 1 As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
- 2 Fight fire from a safe distance, with adequate cover.
- 3 Prevent fire extinguishing water from contaminating surface water or the ground water system.

## Section 6 Accidental Release Measure

### > Personal Precautions, Protective Equipment and Emergency Procedures

- 1 Avoid breathing vapors and contacting with skin and eye.
- 2 Beware of vapours accumulating to form explosive concentrations.
- 3 Vapours can accumulate in low areas.
- 4 Emergency personnel wear positive pressure self-contained breathing apparatus. Wear protective and anti-static clothing. Wear chemical impermeable gloves.
- 5 Ensure adequate ventilation. Remove all sources of ignition.
- 6 Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
- 7 Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

### > Environmental Precautions

- 1 Prevent further leakage or spillage if safe to do so.
- 2 Discharge into the environment must be avoided.

### > Methods and Materials for Containment and Cleaning Up

- 1 Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
- 2 Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
- 3 Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## > Precautions for Handling

### Section 7 Handling and Storage

- 1 Avoid inhalation of vapors.
- 2 Use only non-sparking tools.
- 3 To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded.
- 4 Use explosion proof equipment.
- 5 Handling is performed in a well ventilated place.
- 6 Wear suitable protective equipment.
- 7 Avoid contact with skin and eyes.
- 8 Keep away from heat/sparks/open flames/ hot surfaces.
- 9 Take precautionary measures against static discharges.

## > Precautions for Storage

- 1 Keep containers tightly closed.
- 2 Keep containers in a dry, cool and well-ventilated place.
- 3 Keep away from heat/sparks/open flames/ hot surfaces.
- 4 Store away from incompatible materials and foodstuff containers.

### Section 8 Exposure Controls/Personal Protection

## > Control Parameters

### Occupational Exposure Limit Values

Component	Country/Region	Limit Value - Eight Hours		Limit Value - Short Term	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Propane 74-98-6	USA - OSHA	1000	1800	-	-
	Switzerland	1000	1800	4000	7200
	New Zealand	-	-	-	-
	Ireland	1000	-	-	-
	Germany (AGS)	1000	1800	4000	7200
	Denmark	1000	1800	2000	3600
	Canada - Québec	1000	1800	-	-
	Canada - Ontario	1000	-	-	-
	Belgium	1000	-	-	-
	Austria	1000	1800	2000	3600

### Biological Limit Values

No information available

### Monitoring Methods

- 1 EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
- 2 GBZ/T 160 Determination of toxic substances in workplace air(Series effective standard)and GBZ/T 300 Determination of toxic substances in workplace air(Series standard).

## > Engineering Controls

- 1 Ensure adequate ventilation, especially in confined areas.

- 2 Ensure that eyewash stations and safety showers are close to the workstation location.
- 3 Use explosion-proof electrical/ventilating/lighting/equipment.
- 4 Set up emergency exit and necessary risk-elimination area.

### > Personal Protection Equipment

<b>Eye Protection</b>	Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
<b>Hand Protection</b>	Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU),US F739 or AS/NZS 2161.1 standard.
<b>Respiratory protection</b>	If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
<b>Skin and Body Protection</b>	Wear fire/flame resistant/retardant clothing and antistatic boots.

## Section 9 Physical and Chemical Properties

<b>Appearance:</b> Colorless liquefied gas	<b>Odor:</b> No information available
<b>Odor Threshold:</b> No information available	<b>pH:</b> Not applicable
<b>Melting Point/Freezing Point (°C):</b> -189.7	<b>Initial Boiling Point and Boiling Range (°C):</b> -42
<b>Flash Point (°C)( Closed Cup):</b> Not applicable	<b>Evaporation Rate:</b> Not applicable
<b>Flammability:</b> No information available	<b>Upper/lower explosive limits[%(v/v)]:</b> Upper limit: 9.5; Lower limit: 2.1
<b>Vapor Pressure (KPa):</b> Not applicable	<b>Relative Vapour Density(Air = 1):</b> Not applicable
<b>Relative Density(Water=1):</b> Not applicable	<b>Solubility:</b> Slightly soluble in water
<b>n-Octanol/Water Partition Coefficient:</b> Not applicable	<b>Auto-Ignition Temperature(°C):</b> 450
<b>Decomposition Temperature (°C):</b> No information available	<b>Kinematic Viscosity (mm<sup>2</sup>/s):</b> Not applicable
<b>Particle characteristics:</b> Not applicable	

## Section 10 Stability and Reactivity

<b>Reactivity</b>	Contact with incompatible substances can cause decomposition or other chemical reactions.
<b>Chemical Stability</b>	Stable under proper operation and storage conditions.
<b>Possibility of Hazardous Reactions</b>	In contact with an open flame may cause a fire or explosion.
<b>Conditions to Avoid</b>	Incompatible materials, heat, flame and spark.
<b>Incompatible Materials</b>	Oxidantss and halogen.
<b>Hazardous Decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11 Toxicological Information

### > Acute Toxicity

No information available

**> Skin Corrosion/Irritation**

No information available

**> Serious Eye Damage/Irritation**

No information available

**> Skin Sensitization**

No information available

**> Respiratory Sensitization**

No information available

**> Germ Cell Mutagenicity**

No information available

**> Carcinogenicity**

ID	CAS No.	Component	IARC	NTP
1	74-98-6	Propane	Not Listed	Not Listed

**> Reproductive Toxicity**

No information available

**> Reproductive Toxicity (Additional)**

No information available

**> STOT-Single Exposure**

No information available

**> STOT-Repeated Exposure**

No information available

**> Aspiration Hazard**

No information available

## Section 12 Ecological Information

**> Acute Aquatic Toxicity**

No information available

**> Chronic Aquatic Toxicity**

No information available

**> Others**

**Persistence and Degradability** No information available

**Bioaccumulative Potential** No information available

**Mobility in Soil** No information available

**Results of PBT and vPvB Assessment**

Propane does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

## Section 13 Disposal Considerations

**Waste Chemicals**

Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.

**Contaminated Packaging**

Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.

**Disposal**

Refer to section 13.1 and 13.2.

**Recommendations**

## Section 14 Transport Information

**Transporting Label****Marine pollutant**

None

**UN Number**

1978

**UN Proper Shipping Name**

PROPANE

**Transport Hazard Class**

2.1

**Transport Subsidiary Hazard Class**

NONE

**Packing Group**

The packagings must conform to package instructions of UN number

## Section 15 Regulatory Information

**> International Chemical Inventory**

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS	ENCS
Propane	✓	✓	✓	✓	✓	✓	✓	✓	✓

**[EINECS]** European Inventory of Existing Commercial Chemical Substances.

**[TSCA]** United States Toxic Substances Control Act Inventory.

**[DSL]** Canadian Domestic Substances List.

**[IECSC]** China Inventory of Existing Chemical Substances.

**[NZIoC]** New Zealand Inventory of Chemicals.

**[PICCS]** Philippines Inventory of Chemicals and Chemical Substances.

**[KECI]** Existing and Evaluated Chemical Substances.

**[AICS]** Australia Inventory of Chemical Substances.

**[ENCS]** Existing And New Chemical Substances.

**Note**

"✓" Indicates that the substance included in the regulations

"x" That no data or included in the regulations

## Section 16 Additional Information

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<b>Creation Date</b>	2020/10/23
<b>Revision Date</b>	2020/10/23
<b>Reason for Revision</b>	-

### > **Disclaimer**

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 8th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user' s reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.