

# SAFETY DATA SHEET

According to Regulation (EC) No.1907/2006

  
INTERNATIONAL

## HARP<sup>®</sup> 290, Propane

Version: CLP01

Date: Aug 2011

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### 1. Identification of the substance / preparation and company / undertaking

<b>Product name</b>	Propane, R290
<b>Chemical formula</b>	C3H8
<b>REACH registration number</b>	Registration deadline not expired.
<b>Company</b>	Harp International Ltd Gellihirion Industrial Estate Pontypridd Rhondda Cynon Taff CF37 5SX Tel: +44 (0) 1443 842255 Fax: +44 (0) 1443 841805 Email: harp@harpintl.com
<b>Emergency phone number</b>	+44 (0) 1270 502891 (24 hour)
<b>Use</b>	Refrigerant

### 2. Hazards identification

#### EC Classification of the substance or mixture

Hazard Class & category code:

Regulation (EC) No. 1272/2008 (CLP):

- Physical hazards Flammable gases - Category 1 - Danger (H220)  
Gases under pressure - Liquefied gas -Warning (H280)

Classification EC67/548 or EC 1999/45 F+; R12

#### Label Elements

Labelling Regulation EC 1272/2008 (CLP)

- Hazard pictogram(s)



GHS02



GHS04

- Hazard pictograms code** GHS02 - GHS04.
- Signal word** Danger
- Hazard statements** H220 : Extremely flammable gas  
H280 : Contains gas under pressure; may explode if heated.
- Precautionary statements**
  - Prevention** P210 : Keep away from heat/sparks/open flames/hot surfaces - No smoking.
  - Response** P377 : Leaking gas fire : Do not extinguish unless leak can be stopped safely.
  - Storage** P381 : Eliminate all ignition sources if safe to do so.  
P403 : Store in a well ventilated place.

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### 2. Hazards identification continued

#### Labelling EC 67/548 or EC 1999/45

Symbol(s)

F+ : Extremely flammable.



R Phrase(s)

R12 : Extremely flammable.

S Safety phrase(s)

S9 : Keep container in a well-ventilated place.

S16 : Keep away from sources of ignition.

Other hazards

Other hazards

None.

### 3. Composition / information on ingredients

#### Substance / Preparation

Substance.

Chemical name of substance

Propane

Chemical formula

C3H8

Substance name	Contents	CAS no.	EC No	Index no.	Registration no.	Classification
Propane	100%	74-98-6	200-827-2	601-004-00-0	Note 2	F+; R12 Flam. Gas 1 (H220) Flam. Gas 1 (H220) Liq. Gas (H280)

Contains no other components or impurities which will influence the classification of the product.

Note 1: Listed in Annex IV / V REACH, exempted from registration.

Note 2 : Registration deadline not expired.

Full text of R-phrases see chapter 16.

### 4. First aid measures



The first aid advice given for skin contact, eye contact and ingestion is applicable following exposures to the liquid or spray. Also see section 11.

#### Inhalation

Remove patient from exposure, keep warm and at rest. Administer oxygen if necessary. Apply artificial respiration if breathing has ceased or shows signs of failing. In the event of cardiac arrest apply external cardiac massage. Obtain immediate medical attention.

#### Skin contact

Thaw affected areas with water. Remove contaminated clothing. Caution: clothing may adhere to the skin in the case of freeze burns. After contact with skin, wash immediately with plenty of warm water. If irritation or blistering occur, obtain medical attention.

#### Eye contact

Immediately irrigate with eyewash solution or clean water, holding the eyelids apart for at least 15 minutes. Obtain immediate medical attention.

#### Ingestion

Unlikely route of exposure. Do not induce vomiting. Provided the patient is conscious, wash out mouth with water and give 200-300ml (half a pint) of water to drink. Obtain immediate medical attention.

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### 5. Fire-fighting measures

<b>Specific hazards</b>	Exposure to fire may cause containers to rupture/explode.
<b>Hazardous combustion products</b>	Incomplete combustion may form carbon monoxide.
<b>Extinguishing media</b> <b>-Suitable extinguishing media</b> <b>Specific methods</b>	All known extinguishants can be used. If possible, stop flow of product. Move away from the container and cool with water from a protected position. Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur. Extinguish any other fire.
<b>Special protective equipment for fire fighters</b>	In confined space use self-contained breathing apparatus.

### 6. Accidental release measures

<b>Personal precautions</b>	Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Evacuate area. Ensure adequate air ventilation. Eliminate ignition sources.
<b>Environmental precautions</b>	Try to stop release. Prevent from entering sewers, basements and work-pits or any place where its accumulation can be dangerous.
<b>Clean up measures</b>	Ventilate area.

### 7. Handling and storage

<b>Handling</b>	Take precautionary measures against static discharge. Suck back of water into the container must be prevented. Purge air from systems before introducing gas. Do not allow back-feed into the container. Use properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Keep away from ignition sources (including static discharges). Refer to suppliers container handling instructions.
<b>Storage</b>	Segregate from oxidant gases and other oxidants in store. Keep container below 50°C in a well ventilated place.

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### 8. Exposure controls / personal protection

#### Personal protection

Wear suitable protective clothing, gloves and eye/face protection. Wear thermal insulating gloves when handling liquefied gases. In cases of insufficient ventilation, where exposure to high concentrations of vapour is possible, suitable respiratory protective equipment with positive air supply should be used. Do not smoke while handling product.



Eye Protection



Gloves

#### Occupational exposure limits

Propane : TLV – TWA [ppm] : 2500

### 9. Physical and chemical properties

<b>Form</b>	Liquefied gas
<b>Physical state at 20°C</b>	Gas
<b>Colour</b>	Colourless
<b>Odour</b>	Sweetish. Poor warning properties at low concentrations.
<b>Molecular weight</b>	44
<b>Solubility in water [mg/l]</b>	75
<b>Boiling point (°C)</b>	-42.1
<b>Melting point (°C)</b>	-188.0
<b>Relative density, gas (air=1)</b>	1.5
<b>Relative density, liquid (water =1)</b>	0.58
<b>Vapour pressure (20°C)</b>	8.3 bar
<b>Flammability range [vol% in air]</b>	1.7 to 9.5
<b>Auto ignition temperature [°C]</b>	470
<b>Other data</b>	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

### 10. Stability and reactivity

<b>Hazardous decomposition products</b>	None.
<b>Incompatible materials</b>	Can form explosive mixture with air. May react violently with oxidants. Air, oxidiser.
<b>Conditions to avoid</b>	Keep away from heat, sparks, open flames, hot surfaces. No smoking.

### 11. Toxicological information

<b>Toxicity information</b>	No known toxicological effects from this product.
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### 12. Ecological information

**Ecological effects information** No known ecological damage caused by this product.

### 13. Disposal information

**General** Do not discharge into areas where there is a risk of forming an explosive mixture with air. Waste gas should be flared through a suitable burner with flashback arrestor.  
Do not discharge into a place where its accumulation could be dangerous. Contact supplier if guidance is needed.

### 14. Transport information

**UN No.** 1978  
**Labelling ADR, IMDG, IATA**



2.1 : flammable gas

#### Land transport

**ADR/RID**  
**H.I.nr** 23  
**UN Proper shipping name** Propane  
**Transport hazard class(es)** 2  
**-ADR/RID Classification code** 2 F  
**-Packing instruction(s) - General** P200  
**-Tunnel instructions** B/D Tank carriage: Passage forbidden through tunnels of category B, C, D and E;  
Other carriage: Passage forbidden through tunnels of category D and E.

#### Sea transport

**-IMO-IMDG code**  
**Proper shipping name** Propane  
**Class** 2.1  
**-IMO Packing group** P200  
**-Emergency schedule (EmS) - Fire** F-D  
**-Emergency schedule (EmS) - Spillage** S-U  
**-Instructions - Packing** P200

#### Air transport

**-ICAO/IATA**  
**-Proper shipping name** Propane  
**Class** 2.1  
**Passenger and cargo aircraft** -  
**Cargo aircraft only**  
**-Packing instruction** 200

Avoid transport on vehicles where the load space is not separated from the drivers compartment.  
Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or emergency.

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### 14. Transport information continued

Before transporting containers:

- Ensure containers are firmly secured.
- Ensure cylinder valve is closed and not leaking
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
- Ensure valve protection device (where provided) is correctly fitted.
- Ensure there is adequate ventilation.
- Compliance with applicable regulations.

### 15. Regulatory information

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

Ensure all national/local regulations are observed.

**SEVESO Regulation 96/82/EC**

Listed.

### 16. Other information

Ensure operators understand the flammability hazard.

Contact with liquid may cause burns/frostbite.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

**List of full text of R-phrases in section 3** : R12 : Extremely flammable.

This datasheet was prepared in accordance with Regulation (EC) No. 1907/2006.

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