

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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R290 (PROPANE)

Revision 2

Revision date 2014-10-16

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

1.1. Product identifier

| | |
|--------------|----------------|
| Product name | R290 (PROPANE) |
| CAS No. | 74-98-6 |
| EC No. | 200-827-9 |
| Index No. | 601-003-00-5 |

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

| | |
|-------------|---|
| Product Use | <p>[SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen); [SU19] Building and construction work; [PC16] Heat transfer fluids; [PROC1] Use in closed process, no likelihood of exposure; [ERC7] Industrial use of substances in closed systems; [AC1] Vehicles;</p> <p>-----</p> <p>[SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen); [SU19] Building and construction work; [PC16] Heat transfer fluids; [PROC1] Use in closed process, no likelihood of exposure; [ERC7] Industrial use of substances in closed systems; [AC2] Machinery, mechanical appliances, electrical/electronic articles;</p> <p>-----</p> <p>[SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen); [SU19] Building and construction work; [PC16] Heat transfer fluids; [PROC1] Use in closed process, no likelihood of exposure; [ERC7] Industrial use of substances in closed systems; [AC3] Electrical batteries and accumulators;</p> |
|-------------|---|

1.3. Details of the supplier of the safety data sheet

| | |
|---------------------------------------|---|
| Company | A-Gas UK Limited |
| Address | Banyard Road Portbury West Bristol BS20 7XH United Kingdom |
| Telephone | [+44] (0) 1275 376600 |
| Fax | [+44] (0) 1275 376601 |
| Email address of the competent person | info.uk@agas.com |
| Local Supplier | |
| Company | A-Gas (South Africa) (Pty) Ltd |
| Address | 8 Railway Road Montague Gardens Cape Town 7441 South Africa |
| Web | www.agas.com |
| Telephone | T [+27] (0) 21 551 8790 |
| Fax | F [+27] (0) 21 551 8758 |
| Email | info.sa@agas.com |

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1.4. Emergency telephone number



| | |
|----------------------------|-----------------------|
| Emergency telephone number | 0800 00 5817 24 hr |
|----------------------------|-----------------------|

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

| | |
|--------------------------------------|--|
| 2.1.1. Classification - 67/548/EEC | F+; R12 Symbols: F+: Extremely flammable. |
| Main hazards | Extremely flammable. |
| 2.1.2. Classification - EC 1272/2008 | Flam. Gas 1: H220; |

2.2. Label elements

| | |
|-------------------------------------|---|
| Hazard pictograms |   |
| Signal Word | Danger |
| Hazard Statement | Flam. Gas 1: H220 - Extremely flammable gas. |
| Precautionary Statement: Prevention | P210 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking. |
| Precautionary Statement: Response | P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely. P381 - Eliminate all ignition sources if safe to do so. |
| Precautionary Statement: Storage | P403 - Store in a well-ventilated place. |

2.3. Other hazards

| | |
|---------------|--------------------|
| Other hazards | No data available. |
|---------------|--------------------|

SECTION 3: Composition/information on ingredients

3.1. Substances

67/548/EEC / 1999/45/EC

| Chemical Name | Index No. | CAS No. | EC No. | REACH Registration Number | Conc. (%w/w) | Classification |
|---------------|--------------|---------|-----------|---------------------------|--------------|----------------|
| Propane | 601-003-00-5 | 74-98-6 | 200-827-9 | | | F+; R12 |

EC 1272/2008

| Chemical Name | Index No. | CAS No. | EC No. | REACH Registration Number | Conc. (%w/w) | Classification |
|---------------|--------------|---------|-----------|---------------------------|--------------|--------------------|
| Propane | 601-003-00-5 | 74-98-6 | 200-827-9 | | | Flam. Gas 1: H220; |

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|--------------|--|
| Inhalation | Move the exposed person to fresh air. If breathing is difficult give oxygen. |
| Eye contact | Rinse immediately with plenty of water for 15 minutes holding the eyelids open. |
| Skin contact | Allow to evaporate. Remove contaminated clothing. Rinse immediately with plenty of water for 15 minutes. |
| Ingestion | Not applicable. |

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

| | |
|--------------|---|
| Inhalation | May cause irritation to respiratory system. |
| Eye contact | May cause irritation to eyes. |
| Skin contact | May cause irritation to skin. |
| Ingestion | Not applicable. |

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

| | |
|--------------|---|
| Inhalation | Seek medical attention if irritation or symptoms persist. |
| Eye contact | Seek medical attention if irritation or symptoms persist. |
| Skin contact | Seek medical attention if irritation or symptoms persist. |
| Ingestion | Seek medical attention if irritation or symptoms persist. |

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--|---|
| | Use extinguishing media appropriate to the surrounding fire conditions. |
|--|---|

5.2. Special hazards arising from the substance or mixture

| | |
|--|--|
| | Heating produces hazardous fumes. Extremely flammable gas. |
|--|--|

5.3. Advice for firefighters

| | |
|--|--|
| | Wear self contained breathing apparatus and protective clothing. |
|--|--|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|--|--|
| | Ensure adequate ventilation of the working area. Evacuate personnel to a safe area. Prevent further spillage if safe. Keep public away from danger area. Keep upwind. Eliminate all sources of ignition. |
|--|--|

6.2. Environmental precautions

| | |
|--|---|
| | Avoid release to the environment. Refer to special instructions/Safety data sheets. |
|--|---|

6.3. Methods and material for containment and cleaning up

| | |
|--|---------------------------------------|
| | Do not allow product to enter drains. |
|--|---------------------------------------|

6.4. Reference to other sections

| | |
|--|---|
| | See section 3, 8, 13 for further information. |
|--|---|

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|--|--|
| | Ensure adequate ventilation of the working area. Keep away from sources of ignition - No smoking. Keep away from heat. Heating may cause an explosion. |
|--|--|

7.2. Conditions for safe storage, including any incompatibilities

| | |
|--|--|
| | Keep in a cool, dry, well ventilated area. Store in original container. Keep away from incompatible materials. |
|--|--|

7.3. Specific end use(s)


| | |
|--|---|
| | See section 1.2. Relevant identified uses of the substance or mixture and uses advised against for further information. |
|--|---|

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|--|--|
| | See section 8.2 for further information. |
|--|--|

8.2. Exposure controls

| | |
|---|---|
| |  |
| 8.2.1. Appropriate engineering controls | Ensure adequate ventilation of the working area. |
| 8.2.2. Individual protection measures | Wear protective clothing. Wash all contaminated clothing before reuse. |

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8.2. Exposure controls

| | |
|----------------------------------|---|
| Eye / face protection | Approved safety goggles. In case of splashing, wear: Face shield. |
| Skin protection - Handprotection | Wear suitable gloves. |
| Respiratory protection | In case of insufficient ventilation, wear suitable respiratory equipment. |
| Occupational exposure controls | Adopt best Manual Handling considerations when handling, carrying and dispensing. Keep away from food, drink and animal feedingstuffs. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--------------------------|---------------------|
| Appearance | Liquified Gas. |
| Colour | Colourless |
| Odour | Odourless |
| pH | No data available |
| Melting point | -188 °C |
| Freezing Point | No data available |
| Initial boiling point | -42.1 |
| Flash point | No data available |
| Evaporation rate | No data available |
| Flammability limits | LEL: 2.1% UEL: 9.5% |
| Vapour pressure | No data available |
| Vapour density | 1.55 (Air = 1) |
| Relative density | 0.501 @ 20°C |
| Fat Solubility | No data available |
| Partition coefficient | No data available |
| Autoignition temperature | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidising properties | No data available |
| Solubility | No data available |

9.2. Other information

| | |
|-----------------|-------------------|
| Conductivity | No data available |
| Surface tension | No data available |
| Gas group | No data available |

SECTION 10: Stability and reactivity

10.1. Reactivity

| | |
|--|---------------------------------------|
| | No data is available on this product. |
|--|---------------------------------------|

10.2. Chemical stability

| | |
|--|---|
| | Stable under normal conditions. Vapours are heavier than air. |
|--|---|

10.3. Possibility of hazardous reactions

| | |
|--|---------------------------------------|
| | No data is available on this product. |
|--|---------------------------------------|

10.4. Conditions to avoid

| | |
|--|---|
| | Avoid sparks, flames, heat and sources of ignition. |
|--|---|

10.5. Incompatible materials

| | |
|--|--------------------------|
| | Strong oxidising agents. |
|--|--------------------------|

10.6. Hazardous decomposition products

| | |
|--|---------------------------------------|
| | No data is available on this product. |
|--|---------------------------------------|

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SECTION 11: Toxicological information**11.1. Information on toxicological effects**

No data available.

SECTION 12: Ecological information**12.1. Toxicity**

No data available

12.2. Persistence and degradability

No data is available on this product.

12.3. Bioaccumulative potential

No data is available on this product.

12.4. Mobility in soil

No data is available on this product.

12.5. Results of PBT and vPvB assessment

No data is available on this product.

12.6. Other adverse effects

No data is available on this product.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Dispose of in compliance with all local and national regulations.

SECTION 14: Transport information**Hazard pictograms****14.1. UN number**

UN1978

14.2. UN proper shipping name

PROPANE

14.3. Transport hazard class(es)

| | |
|-----------------|-----|
| ADR/RID | 2 |
| Subsidiary risk | - |
| IMDG | 2.1 |
| Subsidiary risk | - |
| IATA | 2.1 |
| Subsidiary risk | - |

14.4. Packing group

| | |
|---------------|---|
| Packing group | - |
|---------------|---|

14.5. Environmental hazards

| | |
|-----------------------|----|
| Environmental hazards | No |
| Marine pollutant | No |

14.6. Special precautions for user

No data available.

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

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

| | |
|--|-----------------|
| | Not applicable. |
|--|-----------------|

ADR/RID

| | |
|-----------------|-------|
| Hazard ID | 23 |
| Tunnel Category | (B/D) |

IMDG

| | |
|----------|---------|
| EmS Code | F-D S-U |
|----------|---------|

IATA

| | |
|---------------------------------|-----------|
| Packing Instruction (Cargo) | 200 |
| Maximum quantity | 150 kg |
| Packing Instruction (Passenger) | FORBIDDEN |
| Maximum quantity | FORBIDDEN |

SECTION 15: Regulatory information

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

| | |
|-------------|--|
| Regulations | <p>COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.</p> <p>REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.</p> |
|-------------|--|

15.2. Chemical safety assessment

| | |
|--|---------------------------------------|
| | No data is available on this product. |
|--|---------------------------------------|

SECTION 16: Other information

Other information

| | |
|----------|---|
| Revision | <p>This document differs from the previous version in the following areas:.</p> <p>1 - Description.</p> <p>1 - Product Use.</p> <p>5 - 5.2. Special hazards arising from the substance or mixture.</p> <p>7 - 7.3. Specific end use(s).</p> <p>9 - 9.1. Information on basic physical and chemical properties (PH).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Melting point).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Flash point).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Autoignition temperature).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Explosive properties).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Oxidising properties).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Vapour pressure).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Viscosity).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Evaporation rate).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Freezing Point).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Fat Solubility).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Solubility).</p> <p>9 - 9.2. Other information (Conductivity).</p> <p>9 - 9.2. Other information (Partition coefficient).</p> <p>9 - 9.2. Other information (Gas group).</p> |
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Other information

| | |
|--|--|
| | 9 - 9.2. Other information (Surface tension). 10 - 10.4. Conditions to avoid. 10 - 10.5. Incompatible materials. 12 - 12.1. Toxicity. 14 - IMDG. |
| Text of risk phrases in Section 3 | R12 - Extremely flammable. |
| Text of Hazard Statements in Section 3 | Flam. Gas 1: H220 - Extremely flammable gas. |

Further information

| | |
|--|--|
| | The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. |
|--|--|