



# SAFETY DATA SHEET

according to Regulation (EU) No. 453/2010

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## Primus Power Gas Primus Summer Gas Primus Winter Gas

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### **1. Identification of the substance/mixture and of the company/undertaking**

#### **1.1. Product identifier**

**Product code** 2202, 2206, 2207

**Synonyms** None.

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

**Use of the Substance/Preparation** Fuel

#### **1.3. Details of the supplier of the safety data sheet**

**Company/Undertaking Identification** Primus AB  
Box 6041  
SE-171 06 SOLNA, Schweden  
[www.primus.se](http://www.primus.se)  
Telefon +46-8-564 842 30  
Telefax +46-8-564 842 40  
[info@primus.se](mailto:info@primus.se)

**1.4. Emergency telephone number** +46-8-564 842 30

**Issuing date** 20.08.2014

**Version** GHS 2

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## 2. Hazards identification

### 2.1. Classification of the substance or mixture

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

Flammable gases, Cat. 1, H220  
Compressed gas, H280

Classification according to EU Directives 67/548/EEC or 1999/45/EC

F+; R12

Additional information

For the full text of the phrases mentioned in this Section, see Section 16.

### 2.2. Label elements



Signal Word

Danger

Hazard Statements

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

Precautionary statements

P101: If medical advice is needed, have product container or label at hand.  
P102: Keep out of reach of children.  
P210b: 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: Eliminate all ignition sources if safe to do so.  
P410+P403: Protect from sunlight. Store in a well-ventilated place.

Additional advice

None.

GHS product identifier

Hydrocarbons, C3-4-rich, petroleum distillate (<0.1% 1,3-butadiene), CAS-No. 68512-91-4, EC-No. 270-990-9

Labelling according to Directives 67/548/EEC or 1999/45/EC



F+ - Extremely flammable.

R-phrases

R12: Extremely flammable.

S-phrases

S2: Keep out of the reach of children.  
S9: Keep container in a well-ventilated place.  
S16: Keep away from sources of ignition - No smoking.

Hazardous component(s) which must be listed on the label

None.

### 2.3. Other hazards

Pressurized container. Protect from sunlight and do not expose to

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temperatures exceeding 50 °C. Also after use, do not open with force or burn. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep away from children.

### 3. Composition/information on ingredients

Components		CLP Classification	DSD/DPD Classification	Product identifier
Hydrocarbons, C3-4-rich, petroleum distillate (<0.1% 1,3-butadiene)	100 %	Flam. Gas 1 H220, Press. Gas H280	F+; R-12	CAS-No.: 68512-91-4 EC-No.: 270-990-9
Furan-2-methanthiol	20 ppm	Flam. Liq. 3 H226	; R-10	CAS-No.: 98-02-2 EC-No.: 202-628-2

For the full text of the phrases mentioned in this Section, see Section 16.

**Hazardous impurities** None known.

### 4. First aid measures

#### 4.1. Description of first aid measures

**Inhalation** Move to fresh air. Oxygen or artificial respiration if needed. Medical examination necessary even only on suspicion of intoxication. Persons who have inhaled the gas or fumes produced in a fire or who have come into contact with the substance may not show immediate symptoms. They should be taken to a doctor with this card. Patient must be kept under medical supervision for at least 24 hours.

**Skin contact** May cause frostbite. Wash off immediately with plenty of water. Remove contaminated clothing and shoes. Consult a physician for severe cases.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

**Ingestion** Rinse mouth. Drink 1 or 2 glasses of water. Do not induce vomiting. Medical examination necessary even only on suspicion of intoxication.

**4.2. Most important symptoms and effects, both acute and delayed** Contact can cause cold burns, frostbite and/or chemical burns with severe skin damage. Symptoms of poisoning may only appear several hours later. Inhalation may provoke the following symptoms: Asphyxia.

**4.3. Indication of any immediate medical attention and special treatment needed** Artificial respiration and/or oxygen may be necessary.

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## 5. Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Carbon dioxide (CO<sub>2</sub>). Water mist

**Extinguishing media which must not be used for safety reasons** High volume water jet.

**5.2. Special hazards arising from the substance or mixture** Extremely flammable. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind. Closed containers may explode due to pressure build-up when subjected to excessive heat or intense fire.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** In the event of fire, wear self-contained breathing apparatus. Complete suit protecting against chemicals.

**Specific methods** Do not use a solid water stream as it may scatter and spread fire. Water mist may be used to cool closed containers. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## 6. Accidental release measures

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

**Advice for non-emergency personnel** Use personal protective equipment. Avoid contact with skin and eyes. Remove all sources of ignition. Pay attention to flashback. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

**Advice for emergency responders** Keep people away from and upwind of spill/leak. Remove all sources of ignition. Pay attention to flashback. Ventilate the area. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

**6.2. Environmental precautions** No special environmental precautions required.

**6.3. Methods and material for containment and cleaning up** Ventilate the area.

**6.4. Reference to other sections** See chapter 8 and 13.

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## 7. Handling and storage

<b>7.1. Precautions for safe handling</b>	Wear personal protective equipment. Provide appropriate exhaust ventilation at machinery. Keep away from heat and sources of ignition. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.
<b>7.2. Conditions for safe storage, including any incompatibilities</b>	Store in a cool and shaded area. Store in a place accessible by authorized persons only. Keep away from heat. Keep away from direct sunlight.
<b>7.3. Specific end use(s)</b>	See chapter 13.

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## 8. Exposure controls/personal protection

### 8.1. Control parameters

**Exposure limit(s)** This information is not available.

<b>Propane (CAS 74-98-6)</b>	
Ireland - Occupational Exposure Limits - TWAs	1000 ppm TWA
<b>Butane (CAS 106-97-8)</b>	
Ireland - Occupational Exposure Limits - TWAs	1000 ppm TWA
United Kingdom - Workplace Exposure Limits (WELs) - STELs	750 ppm STEL 1810 mg/m <sup>3</sup> STEL
United Kingdom - Workplace Exposure Limits (WELs) - TWAs	600 ppm TWA 1450 mg/m <sup>3</sup> TWA

### 8.2. Exposure controls

**Occupational exposure controls** Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation, especially in confined areas. General industrial hygiene practice.

#### Personal protection equipment

*Respiratory protection* In case of good ventilation no personal respiratory protective equipment required. In case of insufficient ventilation wear suitable respiratory equipment. Respirator with filter for organic vapour

*Hand protection* No special measures required.

*Eye protection* Safety glasses with side-shields.

*Skin and body protection* Long sleeved clothing.

**Thermal hazards** Keep product and empty container away from heat and sources of ignition.

**Environmental exposure controls** No special measures required.

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## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Form</b>	Compressed liquefied gas.
<b>Colour</b>	Colourless.
<b>Odour</b>	Characteristic.
<b>Odour Threshold</b>	No information available.
<b>pH:</b>	No information available.
<b>Melting point/range:</b>	No information available.
<b>Boiling point/range:</b>	-15 °C at atmospheric pressure
<b>Flash point:</b>	No information available.
<b>Evaporation Rate:</b>	No information available.
<b>Flammability:</b>	No information available.
<b>Explosion limits:</b>	1.8 % - 10.2 %
<b>Vapour pressure:</b>	2.8 bar @ 15 °C / 8.3 bar 50 °C
<b>Vapor density:</b>	No information available.
<b>Relative density:</b>	0.5 kg/l @ 20 °C
<b>Water solubility:</b>	No information available.
<b>Partition coefficient (n-octanol/water):</b>	No information available.
<b>Autoignition temperature:</b>	400 °C
<b>Decomposition temperature:</b>	No information available.
<b>Viscosity:</b>	No information available.
<b>Combustion/explosion hazards:</b>	Liquefied gas under pressure, flammable
<b>Oxidizing properties:</b>	None

### 9.2. Other information

<b>General Product Characteristics</b>	No information available.
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## 10. Stability and reactivity

<b>10.1. Reactivity</b>	Risk of receptacle bursting.
<b>10.2. Chemical stability</b>	Stable under recommended storage conditions.
<b>10.3. Possibility of hazardous reactions</b>	No information available.
<b>10.4. Conditions to avoid</b>	Heat, flames and sparks. Temperatures above 50 °C.
<b>10.5. Incompatible materials</b>	None.
<b>10.6. Hazardous decomposition products</b>	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

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## 11. Toxicological information

### 11.1. Information on toxicological effects

<b>Acute toxicity</b>	<b>Hydrocarbons, C3-4-rich, petroleum distillates (CAS 68512-91-4)</b> Inhalation LC50 Rat = 658 mg/L 4 h (IUCLID) <b>Propane (CAS 74-98-6)</b> Inhalation LC50 Rat = 658 mg/L 4 h (IUCLID) <b>Butane (CAS 106-97-8)</b> Inhalation LC50 Rat = 658 g/m <sup>3</sup> 4 h (NLM_CIP) <b>Isobutane (CAS 75-28-5)</b> Inhalation LC50 Rat = 658 mg/L 4 h (IUCLID)
<b>Skin corrosion/irritation</b>	No skin irritation.
<b>Serious eye damage/eye irritation</b>	No eye irritation.
<b>Respiratory / Skin Sensitisation</b>	None.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	Classification not possible from current data.
<b>Reproductive toxicity</b>	Classification not possible from current data.
<b>Specific target organ toxicity (single exposure)</b>	No data available.
<b>Specific target organ toxicity (repeated exposure)</b>	No data available.
<b>Aspiration hazard</b>	No data available.
<b>Human experience</b>	No data available.
<b>Information on likely routes of exposure</b>	inhalativ
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Contact can cause cold burns, frostbite and/or chemical burns with severe skin damage. Inhalation may provoke the following symptoms: Tiredness Drowsiness
<b>Other information</b>	Gas reduces oxygen available for breathing.

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## 12. Ecological information

<b>12.1. Toxicity</b>	No data is available on the product itself.
<b>12.2. Persistence and degradability</b>	The product is degraded in the atmosphere.
<b>12.3. Bioaccumulative potential</b>	Bioaccumulation is unlikely.

<b>12.4. Mobility in soil</b>	May evaporate quickly. Decomposes rapidly in contact with light.
<b>12.5. Results of PBT and vPvB assessment</b>	No information available.
<b>12.6. Other adverse effects</b>	No information available.

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## **13. Disposal considerations**

### **13.1. Waste treatment methods**

<b>Waste from residues / unused products</b>	EWC waste disposal No: 16 05 04 - Gase in Druckbehältern. Dispose of as hazardous waste in compliance with local and national regulations. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.
<b>Contaminated packaging</b>	Dispose of as unused product. Container hazardous when empty.

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## **14. Transport information**

<b>ADR/RID</b>	Proper shipping name RECEPTACLES, SMALL, CONTAINING GAS UN No 2037. Class 2. ADR/RID-Labels 2.1. Classification code 5F. Risk No. 23. Limited quantity 120 ml. Tunnel code D
<b>IMDG</b>	Proper shipping name Receptacles, small, containing gas without a release device, non refillable UN No 2037. Class 2. Packing group -. IMDG-Labels 2.1. Limited quantity Siehe SV277. Marine Pollutant no
<b>IATA</b>	Proper shipping name Receptacles, small, containing gas (flammable) without a release device, non-refillable UN No 2037. Class 2.1. IATA label 2.1. Packing instruction (passenger aircraft): 203 (1 kg). Packing instruction (LQ): -. Packing instruction (cargo aircraft): 200 (15 kg).
<b>Further Information</b>	None.



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## 15. Regulatory information

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

**Regulatory Information** The product is classified and labelled according to Regulation (EC) No. 1272/2008 (GHS/CLP).

**Hydrocarbons, C3-4-rich, petroleum distillates (CAS 68512-91-4)**

EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances Use restricted. See item 28.  
Use restricted. See item 29.

EU - REACH (1907/2006) - List of Registered Substances Present

**Propane (CAS 74-98-6)**

EU - REACH (1907/2006) - List of Registered Substances Present

UN (United Nations) - Selected Volatile Substances Prone to Abuse Present

**Butane (CAS 106-97-8)**

EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances Use restricted. See item 28.  
Use restricted. See item 29.

EU - REACH (1907/2006) - List of Registered Substances Present

UN (United Nations) - Selected Volatile Substances Prone to Abuse Present

**Isobutane (CAS 75-28-5)**

EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances Use restricted. See item 28.  
Use restricted. See item 29.

EU - REACH (1907/2006) - List of Registered Substances Present

UN (United Nations) - Selected Volatile Substances Prone to Abuse Present

**15.2. Chemical safety assessment** Not required.

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## 16. Other information

**Revision Note** Safety datasheet sections which have been updated: 2, 15.

**Key or legend to abbreviations and acronyms** CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS/CLP)

**Key literature references and sources for data** According to information supplied by the manufacturer.

**Classification procedure** Calculation method.

**Full text of phrases referred to under sections 2 and 3** H220: Extremely flammable gas.  
H226: Flammable liquid and vapour.  
H280: Contains gas under pressure; may explode if heated.

R12: Extremely flammable.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. This safety datasheet only contains information relating to safety and does not replace any product information or product specification.