

**Product**

Primus Power Gas
Primus Summer Gas
Primus Winter Gas
Version: GHS - USA 1

Codes: 2202, 2206, 2207

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Date Prepared: April 2015

1. IDENTIFICATION

Identification of the substance/preparation	Primus Power Gas, Primus Summer Gas and Primus Winter Gas
Use of the substance/preparation	Fuel
Company Identification Address and Telephone No.	Primus AB Box 6041 SE-171 06 SOLNA Sweden
Telephone No.	+46-8-564 842 30
Fax No.	+46-8-564 842 40
Contact:	info@primus.se
Emergency telephone number	+46-8-564 842 30

2. HAZARD IDENTIFICATION**GHS-US Classification according to HCS 2012**

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

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Hazard statements (GHS-US) :

DANGER

H220: Extremely flammable gas.

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

Precautionary statements (GHS-US) :

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

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: Eliminate all ignition sources if safe to do so.

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

Other Hazards Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C [122°F]. 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.



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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical description

Mixture of petroleum based hydrocarbons with odorizer.

Hazardous component(s)

Ingredient	CAS Number	EC Number	w/w %	Classification	H Statements
Hydrocarbons, C3-4-rich, petroleum distillate (<0.1% 1,3-butadiene)	68512-91-4	270-990-9	100	Flammable gases, Category 1 Compressed gas	H220 H280
Furan-2-methanthal	98-02-2	202-628-2	20 ppm	Flammable liquid, Category 3	H226

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

4. FIRST-AID MEASURES

Description of first aid measures

Inhalation

Move to fresh air. Administer oxygen or artificial respiration if needed. Medical examination is 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 data sheet. Patient must be kept under medical supervision for at least 24 hours.

Skin contact

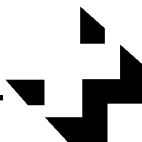
May cause frostbite. Wash off immediately with plenty of water. Remove contaminated clothing and shoes. Consult a physician for severe cases.

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 is necessary even only on suspicion of intoxication.



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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.

Indication of any immediate medical attention and special treatment needed

Artificial respiration and/or oxygen may be necessary.

5. FIRE-FIGHTING MEASURES

Extinguishing media

- Suitable

Water spray/mist, carbon dioxide. Water mist may be used to cool closed containers.

- Not to be used

Water jet.

- Special exposure hazards

Extremely flammable. Be aware of the possibility of spreading of gases especially at ground level (heavier than air) and of the direction of the wind. Closed containers may explode due to pressure build-up when subjected to excessive heat or intense fire. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for fire fighters

Complete protective suit and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Remove all sources of ignition and beware of danger of flashback. Be aware of the possibility of spreading of gases especially at ground level (heavier than air) and of the direction of the wind. Wear suitable protective clothing, gloves and eye protection. See Section 8 for details. Avoid contact with skin and eyes. Keep unnecessary personnel away.

Environmental precautions

No special environmental precautions required.

Methods for cleaning up

Ventilate area.



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7. HANDLING AND STORAGE

Handling

When using, do not eat, drink or smoke. Avoid skin contact and inhalation of vapors or mists if generated. 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 [122°F].

Storage

Keep in tightly closed, original containers. Store in a cool and shaded area, in a place accessible by authorized persons only. Keep away from heat and sources of ignition. Keep away from direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Recommended engineering controls

Ensure good ventilation, especially in confined areas.
Arrange for eye wash possibility.

Control parameters:

Ingredient	Occupational Exposure Levels				
	8h -TWA		Short-term (15min)		Reference
	mg/m ³	ppm	mg/m ³	ppm	
propane	1000	1800	-	-	OSHA
	1000	1800	-	-	NIOSH
butane	800	1900	-	-	NIOSH

Monitoring procedures

Not required

Personal protection

Always check applicability with your supplier of protective 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 vapors.

- Skin protection

Long sleeved clothing.

- Eye protection

Chemical goggles or safety glasses with side-shields.

- Hand protection

No special measures required.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless compressed gas
Odor	Characteristic
Odor threshold	No information available
pH (concentrated product)	Not applicable
Melting point (°C)	No information available
Boiling point/range (°C)	-15 [5°F] at atmospheric pressure
Flash point (°C)	No information available
Evaporation rate (ether=1)	No information available
Flammability (solid/gas)	Flammable gas
Vapor pressure (bar)	2.8 @ 15°C [59°F], 8.3 @ 50°C [122°F]
Vapor density	No information available
Explosive limits	0.6% - 7.8%
Relative Density	0.5 @ 20°C [68°F]
Solubility in water (% by weight)	Immiscible
Partition coefficient (Octanol/water)	No information available
Autoignition temperature (°C)	400 [752°F]
Decomposition temperature	No information available
Viscosity	No information available
Oxidizing properties	None

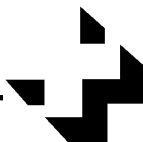
Note: These are typical values and do not constitute a specification.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of storage and use. Risk of receptacle bursting if heated.
Conditions to avoid	Do not expose to heat (temperatures above 50°C [122°F], flames or other ignition sources.
Materials to avoid	None known.
Hazardous decomposition products	Oxides of carbon and smoke evolved in fire.

11. TOXICOLOGICAL INFORMATION

Test data:	No data available on product.
Ingredient data:	
Hydrocarbons, C3-4-rich, petroleum distillate (CAS 68512-91-4)	
Inhalation LC ₅₀ Rat	658 mg/L 4 h
Exposure hazard:	
- Inhalation	Prolonged or repeated exposure may cause tiredness and drowsiness. In cases of severe inhalation can cause asphyxia.
- Skin contact	Not known to cause skin irritation.



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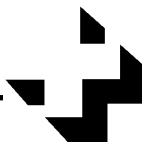
- Eye contact	Not known to cause irritation.
- Ingestion	Not known to present hazards.
Likely routes of exposure	Contact with skin and eyes or by inhalation.
Symptoms related to the physical, chemical and toxicological characteristics	Contact can cause cold burns, frostbite and/or chemical burns with severe skin damage. Inhalation may provoke the following symptoms: Tiredness and drowsiness.
Delayed and immediate effects as well as chronic effects from short and long-term exposure	None known.
Other information	Gas reduces oxygen available for breathing. Calculations according to the precepts of GHS show this product to be not classified as hazardous to health.
Other data	None available.

12. ECOLOGICAL INFORMATION

Aquatic toxicity: QSAR calculations using the EPI Suite ECOSAR program indicate a potential LC ₅₀ for fish of 49.47 mg/L in fresh water. The result indicates that propane would not meet the criteria for acute or chronic toxicity or in the PBT assessment.	No data available on product.
Persistence and degradability	Evaporates rapidly and is degraded in the atmosphere.
Bioaccumulative potential - Bioaccumulation	Not expected to bioaccumulate in aquatic species.
Mobility in soil	Evaporates rapidly from soil
Other adverse effects	No information available
Summary Environmental effects:	Calculations according to the precepts of GHS show this product to be not classified as hazardous to the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of by incineration in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements. Pressurized container which is also hazardous when empty.



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14. TRANSPORTATION INFORMATION

UN number	1075
UN proper shipping name	PETROLEUM GASES, LIQUIFIED (Hydrocarbons, C3-4-rich)
Transport hazard class(es)	2 Classification Code 2F
Packing group	Not applicable
Environmental hazards	None
Special precautions for user	See Section 2.2 above
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

Modal information:

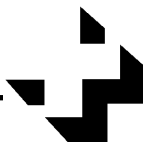
Land transport:	ADR
- Transport hazard label	Gases
- RID/ADR classification	2.1
- Packaging group	Not applicable
- HIN	23
- EAC	2YE
- Tunnel Code	B/D
- Special provision ADR:	274, 583, 639, 660, 662

Maritime transport:	IMDG
- Transport hazard label	Gases
- IMO-IMDG class	2.1
- Packaging group	Not applicable
- EmS code(s)	FD, SU
- Marine Pollutant	No

Air transport:	ICAO/IATA
- Transport hazard label	Gases
- ICAO/IATA classification	2.1
- Packaging group	Not applicable
- ERG Code	10L
- Packing instruction (passenger aircraft):	Forbidden
- Packing instruction (cargo aircraft):	200 (150 kg).

USA DOT:

UN 1075 Petroleum gases, Liquefied
Class: 2.1
Classification code 2F
Special provision ADR: 274, 583, 639, 660, 662
EmS F-D, S-U



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15. REGULATORY INFORMATION

Inventory Status

TSCA

All ingredients of this product are listed unless specifically exempted.

California Proposition 65

Does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

EU

All ingredients of this product are listed in EINECS or ELINCS, unless specifically exempted under EU Directive 67/548/EEC (as amended).

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions, which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Hazardous Material Information (HMIS)		National Fire Protection Association (NFPA)	
Health	2	2	Health
Flammability	4	4	Fire
Physical	1	1	Instability
Personal Protection	A		NA

Health	4 Deadly	3 Extreme Danger	2 Dangerous	1 Slight hazard	0 No hazard
Flammability/Fire	4 < 73 °F	3 < 100 °F	2 < 200 °F	1 >200 °F	0 Will not burn
Physical/Instability	4 - May detonate	3 Explosive	2 Unstable	1 Normally stable	0 Stable

Version number

GHS - USA 1

Date prepared

April 2015

Supersedes Version

None

Nature of revision

Initial issue to HCS 2012 format

H-statements used in Section 3

H220: Extremely flammable gas.

H226: Flammable liquid and vapour.

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

Based on HSC 2012 and EU Regulation 1907/2006

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 guidance for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification.