Butane Gas Refill Express 110ml.
Safety Data Sheet

1. Identification of Substance & Company

Product

Product name	Butane Gas Refill Express 110ml.
Product code	215399
HSNO approval	HSR002532
Approval description	Compressed Gas Mixtures (Flammable) Group Standard 2017
UN number	2037
Proper Shipping Name	RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)
DG class	2.1
Packaging group	NA
Hazchem code	NA
Uses	Butane Gas Cartridge

Company Details

Company	**Shoof International Ltd**	
Address	224 Laurent Road, Cambridge 3493 New Zealand	1 International Square Tullamarine VIC 3043 Australia
Telephone	+64 7 827 3902	+61 3 9907 3000
Fax	+64 7 823 0651	+61 3 9310 4760
Website	www.shoof.co.nz	www.shoof.com.au

NZ Emergency Telephone Number: 0800 POISON (0800 764 766)
Poisons Information Centre – Australia: 13 11 26

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002532, Compressed Gas Mixtures (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes	Hazard Statements
2.1.1A	H220 - Extremely flammable gas. H280 Contains gas under pressure; may explode if heated.

SYMBOLS

DANGER

GHS Classification

Classes	Hazard Statements
Flammable Gas, cat 1 Press. Gas (comp)	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.
P103 - Read label before use.
P210 - Keep away from 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.
P403 - Store in a well-ventilated place.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Concentration
Hydrocarbons, C3-4-rich, petroleum distillate (containing < 0,1 % butadiene)	68512-91-4	50-100%
Propene	115-07-1	10-25%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed The product is not considered acutely toxic. Ingestion is unlikely due to product form (gaseous). In case of persistent symptoms, seek medical advice

Eye contact If product gets in eyes, this may result in a cold burn. Immediately flush eyes with tepid water or sterile saline solution. Holding eyelids apart, continue to wash for 15 mins. Seek medical advice.

Skin contact This product is non-irritating to skin. However, contact may result in a cold burn. Remove contaminated clothing and gently flush affected areas with tepid or cold water for 15 minutes. Apply sterile dressing and treat as for a thermal burn. For large burns, immerse in cold water for 15 minutes. DO NOT apply any form of direct heat. Seek immediate medical attention.

Inhaled The gas is considered to be an asphyxiant. Remove from area of exposure immediately. If assisting a victim avoid becoming a casualty. Be aware of possible explosive atmospheres. If victim is not breathing apply artificial respiration and seek urgent medical attention. Give oxygen if available. Keep warm and rested. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: Gas may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.

Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam, fog sprays.

Unsuitable extinguishing substances: Unknown.

Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

Hazchem code: NA

6. Accidental Release Measures

Containment If greater than >200 kg is stored emergency plans to manage any potential gas leak must be in place.

Emergency procedures Pressurised liquid leaks will immediately vaporise at normal air pressures. Avoid breathing gas. Avoid contact of the liquid with skin and eyes. Clear area of all unprotected personnel. Extinguish or remove all sources of ignition. Switch off power supplies. Shut off leak if safe to do so. Contact emergency authorities and advise of nature of hazard.

Clean-up method Increase ventilation.

Disposal Dispose of empty fuel cells in accordance with local waste management regulations. (See section 13).

Precautions Wear appropriate PPE (see section 8).

7. Storage & Handling

Storage	Do not store near sources of ignition or incompatible materials. Store below 45°C in a secure area. Also store removed from oxidizers. Keep away from children. This substance must be stored locked up if >100kg is stored.
Handling	Before use carefully read the product label and instruction for use. Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m^3 for respirable particulates and 10mg/m^3 for inhalable particulates when limits have not otherwise been established.

	Ingredient	WES-TWA*	WES-STEL*
NZ Workplace Exposure Stds	Propane	Simple asphyxiant	data unavailable
	Propene	Simple asphyxiant	data unavailable
	Butane	800ppm 1900mg/m^{3*}	data unavailable

	Ingredient	ES-TWA*	ES-STEL*
Australian Exposure Stds	Propane	Simple asphyxiant	data unavailable
	Propene	Simple asphyxiant	data unavailable
	Butane	800ppm 1900mg/m^{3*}	data unavailable

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes	To protect eyes, it is recommended that goggles, safety glasses or full face mask be worn. Avoid wearing contact lenses.
Skin	Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves, e.g. PVA gloves.
Respiratory	A respirator with an organic vapour cartridge when airborne concentrations approach the WES (section 8) should be used. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	Compressed liquified gas
Odour	characteristic
pH	no data
Vapour pressure	10.5hPa
Vapour Density	No data
Boiling point	No data
Volatile materials	100%
Freezing / melting point	-138.3°C (butane)
Evaporation rate	2.05 butane)
Solubility	Partly miscible
Specific gravity / density	0.56 (20°C)
Flash point	-70°C
Danger of explosion	canister may explode
Auto-ignition temperature	455°C
Upper & lower flammable limits	LEL: 0.6vol%, UEL 12 vol %
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	This product is unlikely to react or decompose under normal storage conditions. This product will not undergo polymerisation reactions.
Conditions to be avoided	Flammable substance. Keep away from heat and sources of ignition at all times.
Incompatible groups	Oxidizing agents, halogens and acids.
Substance Specific Incompatibility	Thermal decomposition products include carbon oxides, water and carbon.
Hazardous decomposition products	Thermal decomposition may result in toxic and/or irritating fumes, smoke and gases including carbon dioxide and carbon monoxide.
Hazardous reactions	This product is unlikely to react or decompose under normal storage conditions. This product will not undergo polymerisation reactions.

11. Toxicological Information

Summary

IF INHALED: Gas is a simple asphyxiant. It may cause difficulty breathing. It may cause coughing (respiratory irritation). Breathing in large amounts may cause central nervous system depression.

Supporting Data

Acute	**Oral**	No evidence of oral toxicity.
	Dermal	No evidence of dermal toxicity.
	Inhaled	Inhalation may cause asphyxiation in high concentrations. Low toxicity - LC_{50} > 5 mg/L (rat). Butane is a simple asphyxiant gas.
	Eye	Butane is not considered an eye irritant. However exposure to expanding gas may cause frostbite.
	Skin	Butane is not considered a skin irritant. However exposure to expanding gas may cause frostbite.
Chronic	**Sensitisation**	No evidence of sensitisation.
	Mutagenicity	Butane is not considered a mutagen.
	Carcinogenicity	Butane is not is considered a carcinogen.
	Reproductive / Developmental	Butane is not considered a reproductive toxicant.
	Systemic	Butane is not considered a systemic toxicant.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This gas is not considered ecotoxic.

Supporting Data

Aquatic	Butane, Isobutane and propane are not considered ecotoxic towards aquatic organisms.
Bioaccumulation	This product is a gas and will not accumulate in the soil or water or cause long term problems.
Degradability	Volatilization is expected to be primary fate process.
Soil	This product is a gas and is not considered to be harmful in the soil environment.
Terrestrial vertebrate	The mixture is not considered to be harmful towards terrestrial vertebrates.
Terrestrial invertebrate	Butane is not considered toxic towards terrestrial invertebrates.
Biocidal	Not biocidal

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. The canisters cannot be recycled. Send to landfill or similar.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007
Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	2037	**Proper shipping name:**	RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)
Class(es)	2.1	**Packing group:**	NA
Precautions:	Flammable gas	**Hazchem code:**	NA

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002532, Compressed Gas Mixtures (Flammable) Group Standard 2017.
All Ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:	
SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency response plan	Required if > 300kg is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Not required.
Signage	Required if > 250kg is stored.
Location compliance certificate	Required if > 100kg is stored.
Flammable zone	Must be established if >100kg is stored in any one location.
Fire extinguisher	If > 50kg present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

Australia

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP)	Not scheduled
Applicable prohibitions and notifications/licensing requirements	Not listed
Agricultural and Veterinary Chemicals Act	Not listed
Listing in the Australian Inventory of Chemical Substances (AICS)	Listed
Additional information	Not applicable
GHS Hazardous Chemical Information List	Not listed

16. Other Information

Abbreviations

Approval Code	Approval HSR002532, Compressed Gas Mixtures (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
EC_{50}	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Agency
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD_{50}	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC_{50}	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz, Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.
Other References:	EU ECHA, ingredients SDS's, ChemIDplus, Suppliers SDS

Review

Date	**Reason for review**
September 2020	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: ***+64 9 940 30 80.***

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