SAFETY DATA SHEET

AURORA

REDHEADS 300ML BUTANE GAS

Infosafe No.: LQB7W ISSUED Date : 27/06/2022 ISSUED by: AURORA LITES PTY LTD

Section 1 - Identification

Product Identifier REDHEADS 300ML BUTANE GAS

Product Code 23000

Company Name AURORA LITES PTY LTD (ABN 66 649 845 787)

Address 20 Gwynne Street Cremorne VIC 3121 Australia

Telephone/Fax Number Tel: +61 1800 577 280

Emergency Phone Number Poisons Information Centre (131 126) (24 hours)

E-mail Address hello@auroralites.com.au

Recommended use of the chemical and restrictions on use To be used for refilling butane-powered domestic products.

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Aerosols: Category 1

Signal Word (s) DANGER

Hazard Statement (s) H222 Extremely flammable aerosol. H229 Pressurized container: may burst if heated.

Pictogram (s) Flame



Precautionary Statement – Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

Precautionary Statement – Storage

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
butane	106-97-8	30-60 %
isobutane	75-28-5	10-30 %
propane	74-98-6	10-30 %

Section 4 - First Aid Measures

Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

Ingestion

Unlikely due to form of product. However, if ingested, do not induce vomiting. Wash out mouth thoroughly with water. If symptoms develop seek medical attention.

Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

First Aid Facilities

Eyewash and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

Section 5 - Firefighting Measures

Suitable Extinguishing Media

Alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable Extinguishing Media

Do not use water jet.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide.

Specific hazards arising from the chemical

Contents under pressure - cans can explode in a fire or may become a projectile in a fire. This product is extremely flammable. Keep containers and fire-exposed surfaces cool with water spray. Shut off any leak if safe to do so and remove sources of reignition. Vapour/air mixtures may ignite explosively. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion hazard.

Hazchem Code

2YE

Decomposition Temperature

Not available

Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses.

Section 6 - Accidental Release Measures

Emergency Procedures

Extinguish or remove all sources of ignition and stop leak if safe to do so. Wear appropriate personal protective equipment and clothing to prevent exposure. Evacuate all unprotected personnel. Water spray or fog may be used to disperse/absorb vapour if any. Place inert, Non-combustible absorbent material onto spillage. If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated. Undamaged cans should be gathered and stowed safely. Collect residues and seal in labelled drums for disposal. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations. Dispose of waste according to applicable local and national regulations.

Section 7 - Handling and Storage

Precautions for Safe Handling

EXTREMELY FLAMMABLE. VAPOUR OR GAS REDUCES OXYGEN FOR BREATHING. IN CONFINED SPACES MAY CAUSE ASPHYXIATION. Wear appropriate personal protective equipment and clothing to prevent exposure. Handle and use the material in a well-ventilated area, away from sparks, flames and other ignition sources. DO NOT store or use in confined spaces. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Build up of mists or vapours in the atmosphere must be prevented. Do NOT cut or heat containers as they may contain hazardous residues. Do not smoke. Flameproof equipment is necessary in areas where the product is being used. Take precautionary measures against static discharges. Earth or bond all equipment. Do not empty into drains. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using the toilet facilities.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area away from sources of ignition, oxidising agents, foodstuffs, clothing and out of direct sunlight. Do not expose can to temperatures exceeding 50°C. Protect container against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Do NOT pressurise, cut or heat aerosol containers. Content is under pressure and can explode violently. For information on the design of the storeroom, reference should be made to Australian Standard AS 2278 - Non-refillable metal aerosol dispensers of capacity 50 mL to 1000 mL inclusive. Reference should also be made to all Local, State and Federal regulations.

Storage Temperatures

Do not expose to temperatures exceeding 50°C.

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Butane TWA: 800 ppm, 1900 mg/m³

Propane Note: Asphyxiant

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eighthour working day, for a five-day week. Source: Safe Work Australia

Biological Monitoring No biological limits allocated.

Control Banding

Not available

Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements. Refer to AS 2865 Australian Standard Safe working in a confined space, for further information concerning ventilation requirements.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable organic vapour filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye and Face Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/ face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Thermal Hazards

No further relevant information available.

Body Protection

Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Other Information

Propane and butane are asphyxiant gases which when present in an atmosphere in high concentration, lead to reduction of oxygen concentration by displacement or dilution. It is not appropriate to recommend an exposure standard for each simple asphyxiant, rather it should be required that a sufficient oxygen concentration be maintained.

Properties	Description	Properties	Description
Form	Aerosol	Appearance	Aerosol containing colourless liquid.
Colour	Colourless (contents)	Odour	Natural gas
Melting Point	-11 °C	Boiling Point	Not available
Decomposition Temperature	Not available	Solubility in Water	Not available
Specific Gravity	Not available	рН	Not available
Vapour Pressure	2.73 bar (20°C)	Relative Vapour Density (Air=1)	Not available
Evaporation Rate	Not available	Odour Threshold	Not available
Viscosity	Not available	Partition Coefficient: n- octanol/water (log value)	Not available
Flash Point	Not available	Flammability	Extremely flammable aerosol
Auto-Ignition Temperature	Not available	Flammable Limits - Lower	Not available
Flammable Limits - Upper	Not available	Explosion Properties	Explosive under the Influence of a flame
Oxidising Properties	Not available		

Section 9 - Physical and Chemical Properties

Other Information

Gas/vapour heavier than air. May accumulate in confined spaces, particular at or below ground level.

Section 10 - Stability and Reactivity

Reactivity

Reacts with incompatible materials.

Chemical Stability

Stable under normal conditions of storage and handling.

Possibility of hazardous reactions

May react violently with oxidants.

Conditions to Avoid

Heat, direct sunlight, flames and other sources of ignition. Pressurised container: may burst if heated . Do not expose to temperatures exceeding 50°C.

Incompatible Materials

Oxidising agents.

Hazardous Decomposition Products

Does not decompose when used and stored as recommended. Thermal decomposition may result in the release of toxic and/or irritating fumes and gases including carbon monoxide and carbon dioxide.

Hazardous Polymerization

Not available

Section 11 - Toxicological Information

Toxicology Information

No toxicity data available for this material. The available acute toxicity data for the ingredient/s is/are given below.

Acute Toxicity - Inhalation

Butane: LC50 (rat, vapours): 1443 mg/l Isobutane: LC50 (rat, gases): 800,000 ppmV Propane: LC50 (rat, vapours): 1,443 mg/l

Ingestion

Ingestion unlikely due to form of product.

Inhalation

Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.

Propane and butane are asphyxiant gases which when present in an atmosphere in high concentration, leads to reduction of oxygen concentration by displacement or dilution. Symptoms include decreased visual acuity, decreased coordination and judgment, headache, dizziness, confusion, drowsiness, fatigue, shortness of breath, muscular weakness, convulsions, unconsciousness, coma and eventually death.

Skin

May be irritating to skin. The symptoms may include redness, itching and swelling.

Eye

May be irritating to eyes. The symptoms may include redness, itching and tearing.

Respiratory Sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

Reproductive Toxicity

Not considered to be toxic to reproduction.

Propane Reproductive toxicity – fertility Screening - NOAEC 3.000 ppm, Inhalation, Rat Reproductive toxicity – development Developmental toxicity: - NOAEC: 9.000 ppm, Inhalation

STOT - Single Exposure Not expected to cause toxicity to a specific target organ.

STOT - Repeated Exposure Not expected to cause toxicity to a specific target organ. Aspiration Hazard

Not expected to be an aspiration hazard.

Section 12 - Ecological Information

Ecotoxicity

No ecological data available for this material.

Persistence and degradability

Butane Phototransformation Air - DT50: 1906 days Biodegradation Water - Degradation 100: 385.5 hours

Isobutene Persistence and degradability Not applicable. Biodegradation Water - Half-life 100: 6,9 days

Propane Phototransformation Air - DT50: 1906 days Biodegradation Water - Degradation 100: 385.5 hours

Mobility Not available

Bioaccumulative Potential Butane: Partition coefficient log Pow: 2.89

Isobutane: Partition coefficient log Pow: ~ 2.76

Propane: Partition coefficient log Pow: ~ 3

Other Adverse Effects Not available

Environmental Protection Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Fish Butane: LC50 (Fish): 49.9 mg/l/96h

Isobutane: LC50 (Fish): 49.9 mg/l/96h

Propane: LC50 (Fish): 49.9 mg/l/96h

Acute Toxicity - Daphnia Butane: LC50 (Daphnia magna): 69.43 mg/l/48h Isobutane: LC50 (Daphnia magna): 69.43 mg/l/48h

Propane: LC50 (Daphnia magna): 69.43 mg/l/48h

Acute Toxicity - Algae Butane: EC50 (Algae):19.37 mg/l/96h

Isobutane: EC50 (Algae):19.37 mg/l/96h

Propane: EC50 (Algae):19.37 mg/l/96h

Hazardous to the Ozone Layer This product is not expected to deplete the ozone layer.

Section 13 - Disposal Considerations

Disposal Considerations

Dispose of waste according to applicable local and national regulations. Do not pierce, burn, cut, puncture or weld on or near containers. Empty containers may contain hazardous residues. Empty the container completely before disposal. Contaminated containers must not be treated as household waste. Advise flammable nature. To minimise personal exposure, refer to Section 8 - Exposure Controls and Personal Protection.

Section 14 - Transport Information

Transport Information

Road and Rail Transport (ADG Code):

This material is classified as Dangerous Goods Division 2.1 Flammable Gases

Division 2.1 Dangerous Goods are incompatible in a placard load with any of the following:

- Class 1: Explosives

- Division 2.2 Non-flammable, Non toxic gas that have a subsidiary risk 5.1 except when all are packed in cylinders or pressure drums not exceeding 500L capacity.

- Class 3: Flammable Liquids, if both the Division 2.1 and Class 3 dangerous goods are in tanks or other receptacles with a capacity individually exceeding 500L.

- Division 4.1: Flammable Solids
- Division 4.2: Spontaneously combustible substances
- Division 4.3: Dangerous when wet substances
- Division 5.1: Oxidising substances
- Division 5.2: Organic peroxides
- Class 7: Radioactive materials unless specifically exempted

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Class/Division: 2.1 UN No: 1950 Proper Shipping Name: AEROSOLS EMS: F-D, S-U Special Provisions: 63, 190, 277, 327, 344, 381, 959

Air Transport (ICAO/IATA): Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air. Class/Division: 2 .1 UN No: 1950 Proper Shipping Name: Aerosols, flammable Packaging Instructions (cargo only): 203 Packaging Instructions (passenger & cargo): 203 Hazard Label: Flammable gas Special Provisions: A145, A167, A802

ADG U.N. Number 1950

ADG Proper Shipping Name AEROSOLS

ADG Transport Hazard Class 2.1 Hazchem Code

2YE

IERG Number 49

Special Precautions for User Not available

IMDG Marine pollutant No

Transport in Bulk Not available

Section 15 - Regulatory Information

Regulatory Information

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule Not Scheduled

Montreal Protocol Not listed

Stockholm Convention Not listed

Rotterdam Convention Not listed

International Convention for the Prevention of Pollution from Ships (MARPOL) Not available

Agricultural and Veterinary Chemicals Act 1994 Not available

Basel Convention Not available

Section 16 - Any Other Relevant Information

Date of Preparation SDS Created: June 2022

Version Number 1.0

Literature References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice. Standard for the Uniform Scheduling of Medicines and Poisons. Australian Code for the Transport of Dangerous Goods by Road & Rail.

Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Code of Practice for Supply Diversion into Illicit Drug Manufacture.

National Code of Practice for Chemicals of Security Concern.

Agricultural Compounds and Veterinary Chemicals Act.

International Agency for Research on Cancer (IARC) Monographs.

Montreal Protocol on Substances that Deplete the Ozone Layer.

Stockholm Convention on Persistent Organic Pollutants (POPs).

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.

International Air Transport Association (IATA) Dangerous Goods Regulations.

International Maritime Dangerous Goods (IMDG) Code.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition).

Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

END OF SDS

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