according to WHS Regulations

Print date: 20.04.2023 Revision date: 20.04.2023

1 Identification

Product Name: ROVIN Gas Canister

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: For use in portable gas appliances only

Emergency telephone number: National Poisons Information Centre: 13 11 26

2 Hazard(s) Identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

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



Flam. Gas 1A H220 Extremely flammable gas.



Press. Gas L H280 Contains gas under pressure; may explode if heated.

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.

P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. 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.

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:			
CAS: 106-97-8	Butane	♦ Flam. Gas 1A, H220; ♦ Press. Gas C, H280	50-<70%
CAS: 75-28-5	Isobutane	♦ Flam. Gas 1A, H220; ♦ Press. Gas C, H280	25-<35%
CAS: 74-98-6	Propane	♦ Flam. Gas 1A, H220; ♦ Press. Gas L, H280	0-<5%

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Additional information:

This product does not contain 1,3-butadiene (CAS: 106-99-0) in amounts equal or larger than 0.1%.

4 First Aid Measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, do not attempt to remove frozen clothing and cool the frostbite injury as long as possible with cold water. If frostbite has not occured, remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if irritation persists.

Eye Contact:

In case of eye contact, rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: May cause respiratory irritation. Skin Contact: May cause skin irritation. Eye Contact: May cause eye irritation.

Ingestion: May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

5 Fire Fighting Measures

Suitable Extinguishing Media:

Fight larger fires with water spray or water fog. Fight smaller fires with dry chemical or carbon dioxide.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon and various hydrocarbons.

Product is extremely flammable. Vapours may travel considerable distances to a source of ignition where they can ignite, flashback, or explode.

Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Minimise run-off from fire fighting entering drains or water courses.

No HAZCHEM Code has been issued for this article.

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved self-contained breathing apparatus and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

In case of a leak or of an emergency disposal, secure the cartridge and slowly discharge the gas to the atmosphere in a well-ventilated area or outdoors. Allow the gas mixture to dissipate. Do not attempt to repair leaking valve or cartridge safety devices.

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7 Handling and Storage

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.

Take precautionary measures against static discharge. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from heat, sparks, open flames, hot surfaces, and other sources of ignition. Keep away from oxidising agents and halogens. Do not weld, cut or drill on full or empty containers. Handling equipment must be grounded to prevent sparking. In areas where explosion hazard exists workers should be required to wear non-sparking boots.

8 Exposure Controls and Personal Protection

Exposure	Standards:

CAS: 106-97-8 Butane

WES TWA: 1900 mg/m³, 800 ppm

CAS: 74-98-6 Propane

WES Asphyxiant

Engineering Controls:

Maintain air concentration below occupational exposure standards, providing adequate ventilation. Use explosion-proof ventilating equipment. Sufficient oxygen concentration must be maintained.

Respiratory Protection:

Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Anti-static chemical protective gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational anti-static chemical protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 Physical and Chemical Properties

Appearance:

Form: Gas (liquefied)
Colour: Colourless
Odour: Characteristic

Odour Threshold: No information available pH-Value: No information available

Melting point/freezing point: >-155 °C

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Initial Boiling Point/Boiling Range: >-10 °C Flash Point: >-75 °C

Flammability (solid, gas): Extremely flammable.

Auto-ignition Temperature: 260 °C

Decomposition Temperature: No information available

Explosion Limits:

Lower: 1.6 Vol %
Upper: 8.4 Vol %
Vapour Pressure at 21 °C: ~2,500 hPa
Relative Density at 15 °C: 0.58
Vapour Density: ~2 (air = 1)

Evaporation Rate: No information available

Solubility in Water: Insoluble

Partition Coefficient (n-octanol/water): No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions:

Contact with incompatible substances can cause decomposition or other chemical reactions.

Chemical Stability: Stable at ambient temperature and under normal conditions of storage and use.

Conditions to Avoid: Heat, sparks, open flames, hot surfaces, and other sources of ignition.

Incompatible Materials: Oxidising agents and halogens.

Hazardous Decomposition Products: Oxides of carbon and various hydrocarbons.

11 Toxicological Information

Toxicity:

LD50/LC50 Values:

CAS: 106-97-8 Butane

Inhalation LC50/4 h 658 mg/l (Rattus norvegicus (rat))

CAS: 74-98-6 Propane

Inhalation LC50/4 h 658 mg/l (Rattus norvegicus (rat))

Acute Health Effects

Inhalation: May cause respiratory irritation.

Skin: May cause skin irritation. **Eye:** May cause eye irritation.

Ingestion: May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.

Serious Eye Damage / Irritation: Based on classification principles, the classification criteria are not met.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity: This product does NOT contain any IARC listed chemicals.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure:

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

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Chronic Health Effects: No data associated with long term health effects. Existing Conditions Aggravated by Exposure: No data available.

12 Ecological Information

Ecotoxicity:

Aquatic toxicity:

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability:

Butane has a low persistence in water/soil/air, while isobutane has a high persistence in water/soil/air.

Bioaccumulative Potential: Expected to have low bioaccumulative potential.

Mobility in Soil: Expected to have low mobility in soil.

Other adverse effects: No further relevant information available.

13 Disposal Considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:

Please consult your state Land Waste Management Authority for more information.

14 Transport Information

UN Number

ADG, IMDG, IATA UN2037

Proper Shipping Name

ADG, IMDG, IATA RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES) without a

release device, non-refillable

Dangerous Goods Class

ADG Class: 2.1 **Packing Group:** None Marine pollutant: No **EMS Number:** F-D,S-U

Hazchem Code: None Excepted quantities (EQ): E0 **Limited Quantities:**

15 Regulatory Information

Australian Inventory of Industrial Chemicals:

1 L

All ingredients are listed.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Poison Schedule:

Not a scheduled poison.

16 Other Information

Date of Preparation or Last Revision: 20.04.2023

Prepared by: MSDS.COM.AU Pty Ltd www.msds.com.au

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Abbreviations and acronyms:

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Flam. Gas 1A: Flammable gases – Category 1A Press. Gas C: Gases under pressure – Compressed gas Press. Gas L: Gases under pressure – Liquefied gas

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - July 2020".

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