SAFETY DATA SHEET
BUTANE CARTRIDGE
According to Regulation (EU) No 453/2010

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Product Name BUTANE CARTRIDGE
Product No. D2, D4, P2, S4, S6
EC No. 270-990-9

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses Fuel for portable gas appliances.

1.3. Details of the supplier of the safety data sheet
Supplier: JFA Ltd
Riverside Mill Lane
Taplow
Berkshire SL6 0AA
Tel: 01628 637111
Fax: 01628 773030
chris@jfaexport.com

1.4. Emergency telephone number
01628 637111 (Office hours)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical and Chemical Hazards Flam. Gas 1 - H220
Human health Not classified.
Environment Not classified.


Human Health
See section 11 for additional information on health hazards.

Physical And Chemical Hazards
Contains gas under pressure; may explode if heated. The product is extremely flammable and may ignite in the air at normal temperature and pressure. Explosive vapour/air mixtures may be spontaneously formed.

2.2. Label elements
EC No. 270-990-9

Label In Accordance With (EC) No. 1272/2008

Signal Word Danger
Hazard Statements H220 Extremely flammable gas.
Precautionary Statements P102 Keep out of reach of children.
P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
Supplementary Precautionary Statements P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

2.3. Other hazards
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

<table>
<thead>
<tr>
<th>HYDROCARBONS, C3-4-RICH, PETROLEUM DISTILLATE; PETROLEUM GAS (&lt; 0.1% 1,3-BUTADIENE)</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.: 68512-91-4</td>
<td>EC No.: 270-990-9</td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases and Hazard Statements is Displayed in Section 16

EC No. 270-990-9

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

**Inhalation.**
Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.

**Ingestion**
Not relevant.

**Skin Contact**
Remove affected person from source of contamination. Promptly stop exposure and get medical attention if frostbite has occurred. Promptly flush contaminated skin with soap or mild detergent and water. Promptly remove clothing if penetrated and flush the skin with water.

**Eye Contact**
Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

4.2. Most important symptoms and effects, both acute and delayed

**Inhalation.**
May cause nausea, headache, dizziness and intoxication. Asphyxiating

**Ingestion**
Not relevant.

**Skin Contact**
Contact with liquid form may cause frostbite.

**Eye Contact**
Contact with liquid form may cause frostbite. Corneal damage.

4.3. Indication of any immediate medical attention and special treatment needed

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

**Extinguishing Media**
Stop flow of material to fire. Use: Water spray, dry powder or carbon dioxide.

**Unsuitable Extinguishing Media**
Foam. Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

**Hazardous Combustion Products**
During fire, toxic gases (CO, CO2) are formed.

**Unusual Fire & Explosion Hazards**
Extremely flammable. May explode in a fire.

**Specific Hazards**
Fire or high temperatures create: Carbon monoxide (CO). Carbon dioxide (CO2).

5.3. Advice for firefighters

**Special Fire Fighting Procedures**
Ventilate closed spaces before entering them. Move container from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours. Cool containers exposed to flames with water until well after the fire is out. Fight advanced or massive fires from safe distance or protected location.
Protective Measures In Fire
Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions
Not applicable.

6.3. Methods and material for containment and cleaning up
Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

6.4. Reference to other sections
Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Provide good ventilation. Only use with compatible / applicable appliances. Use only in the upright position. Do not store in basements, cellars, etc., low-level points where vapours can accumulate or in vehicles (heating by sun).

7.2. Conditions for safe storage, including any incompatibilities
Flammable/combustible - Keep away from oxidisers, heat and flames. May attack some plastics, rubber and coatings. Store at temperature below 50°C.

Storage Class
Flammable compressed gas storage.

7.3. Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Ingredient Comments
No exposure limits noted for ingredient(s).

8.2. Exposure controls

Engineering Measures
Provide adequate general and local exhaust ventilation.

Respiratory Equipment
In case of inadequate ventilation use suitable respirator. CCR, Chemical cartridge respirator.

Other Protection
Use engineering controls to reduce air contamination to permissible exposure level. Wear appropriate clothing to prevent skin contamination or freezing.

Hygiene Measures
DO NOT SMOKE IN WORK AREA! Promptly remove non-impervious clothing that becomes wet or contaminated.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance
Gas

Colour
Colourless

Odour
Pepper.

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
None noted.

10.2. Chemical stability
Stable under normal temperature conditions and recommended use.
10.3. Possibility of hazardous reactions

Hazardous Polymerisation
Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid exposure to high temperatures or direct sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

10.5. Incompatible materials

Materials To Avoid
Strong oxidising substances.

10.6. Hazardous decomposition products

Toxic gases/vapours/fumes of: Carbon monoxide (CO).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxic Conc. - LC 50 658 mg/l/4h (inh-rat)

General Information
Use only as directed. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Health Warnings
Gas or vapour displaces oxygen available for breathing (asphyxiating). Narcotic effect. Contact with liquid form may cause frostbite.

Route of entry
Inhalation. Skin and/or eye contact.

Target Organs
Central nervous system Eyes Respiratory system, lungs

Medical Symptoms
May cause suffocation. Dizziness.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:
The product is not expected to be hazardous to the environment.

12.1. Toxicity

Acute Fish Toxicity
Not considered toxic to fish.

LC 50, 96 Hrs, Fish mg/l > 1000

12.2. Persistence and degradability

Degradability:
There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative Potential:
No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:
The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB Substances.

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Make sure containers are empty before discarding (explosion risk). Do not puncture or incinerate even when empty. This material and its container must be disposed of in a safe way. Dispose of waste and residues in accordance with local authority requirements. Recover and reclaim or recycle, if practical.
SECTION 14: TRANSPORT INFORMATION

General
The product is packaged as Limited Quantity Packaging.

Air Transport Notes
As supplied not packaged suitably for air.

14.1. UN number

UN No. (ADR/RID/ADN) 2037
UN No. (IMDG) 2037

14.2 UN Proper shipping name

Proper Shipping Name GAS CARTRIDGE

14.3 Transport hazard class(es)

ADR/RID/ADN Class Class 2.1: Flammable gases.
ADR Label No. 2.1
IMDG Class 2.1

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant No.

14.6. Special precautions for user

EMS F-D, S-U
Emergency Action Code Not applicable.
Tunnel Restriction Code Not applicable, packaged as Limited Quantity.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

EU Legislation

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Comments
Nomenclature of ingredients amended. Re-issued in GHS / CPL format.

Risk Phrases In Full
R12 Extremely flammable.

Hazard Statements In Full
H220 Extremely flammable gas.