# Section 1. Product and Company Identification.

**1.1 Model Number;** DH238 v1

**1.2 Description;** 1L Automatic Churning Ice Cream Machine, Fast Freeze Compressor Cooling, Yoghurt Function
Refrigerant R600a Isobutane 18 grams.

**1.3 Manufacturer;**
Dellonda.
Kempson Way,
Bury St. Edmunds,
Suffolk.
IP32 7AR

**1.4 Emergency telephone number;** 44 (0) 1284 757 500 (Office Hours)

**Date of source compilation;** 16/03/2023

# Section 2. Hazards Identification.

Not relevant to Model Number identified in 1.1 with Description stated in 1.2.

# Section 3. Substances.

| **3.1 Chemical Name** (substance) | **3.1 CAS No.** | **3.2 Concentration Weight** | **Classification** | |
|---|---|---|---|---|
| | | | **Hazard Class & Category Code** | **Hazard Statements [1]** |
| Isobutane | 75-28-5 | 100% | Flam. Gas 1<br>Press. Gas | H220 |

[1]For full text of Statements, see Section 16.

# Section 4. First Aid Measures.

**4.1** Description of first aid measures

**Inhalation**
Immediately remove person to fresh air.
Seek medical attention immediately.

**Skin Contact**
Flush area with cold water.
If irritation persists, seek medical attention.

**Eye Contact**
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If irritation persists, seek medical attention.

**Ingestion**
Not a primary route of exposure.
Seek medical attention

## Section 5. Fire Fighting Measures.

**5.1.** Extinguishing media
Water. Carbon Dioxide. Dry Chemical.

**5.2.** Special hazards arising from the substance or mixture
Gas may travel a considerable distance to an ignition source due to it being heavier than air.

**5.3.** Advice for fire-fighters
Stop flow of gas.
Use water spray to cool exposed containers.
Increase ventilation.
Extinguish sources of ignition

## Section 6. Accidental Release Measures.

**6.1.** Personal precautions, protective equipment and emergency procedures
Evacuate area.
Ventilate area.
Prevent / remove sources of ignition.

**6.2.** Environmental precautions
No data available

**6.3.** Methods and material for containment and cleaning up
No data available

**6.4.** Reference to other sections
See Section 7 for information on Safe Handling
See Section 8 for information of Personal Protective Equipment.
See Section 13 for information on disposal.

## Section 7. Handling and Storage.

**7.1.** Precautions for safe handling
No data available

**7.2.** Conditions for safe storage, including any incompatibilities Store in cool, dry, well-ventilated area.
Do not allow temperature to exceed 54 °C. Full and empty containers should be separated.

**7.3.** Specific end use(s)
Intended for use as the refrigerant gas for the Model Number identified in 1.1 with Description stated in 1.2.

## Section 8. Exposure Controls/Personal Protection.

**8.1.** Control parameters
No data available

**8.2.** Exposure controls
**Appropriate Engineering Controls**
Safety shoes to be worn.
Eyewash station.

**Eye/Face Protection**
Safety goggles that meet specification EN 166

**Skin Protection**
Protective gloves made from rubber.

**Respiratory Protection**
Use local exhaust to prevent gas accumulating.
Ventilate area.

## Section 9. Physical and Chemical Properties.

**9.1.** Information on basic physical and chemical properties
**The following information is not a technical specification or sales specification.**

| | |
|---|---|
| (a) Appearance: | Colourless |
| (b) Odour: | Odourless |
| (c) Odour threshold; | No data available |
| (d) pH: | No data available |
| (e) Melting point/freezing point; | -159.6°C (-255.3°F) |
| (f) Initial boiling point and boiling range; | -11.7°C (10.9°F) |
| (g) Flash point; | -83°C (-117°F) |
| (h) Evaporation rate; | No data available |
| (i) Flammability (solid, gas); | No data available |
| (j) Upper/lower flammability or explosive limits; | Upper, 8.4 % Lower, 1.8 % |
| (k) Vapour pressure; | 45 psia (@70 F) |
| (l) Vapour density; | 2.06 (Air = 1) |
| (m) Relative density; | No data available |
| (n) Solubility(ies); | Slightly soluble in water |
| (o) Partition coefficient: n-octanol/water; | No data available |
| (p) Auto-ignition temperature; | 420°C (-778°F) |
| (q) Decomposition temperature; | No data available |
| (r) Viscosity; | No data available |
| (s) Explosive properties; | No data available |
| (t) Oxidising properties. | No data available |

**9.2** Other information — No data available

## Section 10. Stability and Reactivity.

| | |
|---|---|
| **10.1.** Reactivity | No data available |
| **10.2.** Chemical stability | Stable |
| **10.3.** Possibility of hazardous reactions | No data available |
| **10.4.** Conditions to avoid | High Temperatures at 435°C (815°F) |
| **10.5.** Incompatible materials | Oxidizers |
| **10.6.** Hazardous decomposition products | Carbon monoxide and Carbon dioxide |

## Section 11. Toxicological Information.

**11.1.** Information on toxicological effects

No data available

## Section 12. Ecological Information.

| | |
|---|---|
| 12.1. Toxicity | No data available |
| 12.2. Persistence and degradability | No data available |
| 12.3. Bioaccumulative potential | No data available |
| 12.4. Mobility in soil | No data available |
| 12.5. Results of PBT and vPvB assessment | No data available |
| 12.6. Other adverse effects | No data available |

## Section 13. Disposal Considerations.

**13.1.** Waste treatment methods

Return in the shipping container Properly labelled, with any valve outlet plugs or gaps secured and valve protection cap in place to Advanced Gas Technologies for proper handling.

## Section 14. Transport Information.

ADR. International Carriage of Dangerous Goods by Road.

| | |
|---|---|
| **14.1.** UN number | UN 3358 |
| **14.2.** Name and Description | Refrigerating machines containing flammable, non-toxic, liquefied gas |
| **14.3.** Class | 2 |
| **14.4.** Packing group | - |
| **14.5.** Environmental hazards | Does not present an environmental hazard. |
| **14.6.** Special precautions for user | No special precautions necessary. |

Special Provision 291
Refrigerating machines and refrigerating machine components are not subject to the requirements of ADR if they contain less than 12 kg of gas.

IATA. International Air Transport Association.

| | |
|---|---|
| **14.1.** UN number | UN 3358 |
| **14.2.** UN Proper Shipping Name/Description | Refrigerating machines containing flammable, non-toxic, liquefied gas |
| **14.3.** Class or Division | 2.1 |
| **14.4.** Packing group | - |
| **14.5.** Environmental hazards | Does not present an environmental hazard. |
| **14.6.** Special precautions for user | No special precautions necessary. |

Special Provision A103
Refrigerating machines and refrigerating machine components are considered not subject to these Regulations if containing less than 100 g of flammable, non-toxic, liquefied gas.

IMDG. International Maritime Dangerous Goods.

| | |
|---|---|
| **14.1.** UN number | UN 3358 |
| **14.2.** UN proper shipping name | Refrigerating machines containing flammable, non-toxic, liquefied gas |
| **14.3.** Class | 2.1 |
| **14.4.** Packing group | - |
| **14.5.** Environmental hazards | Does not present an environmental hazard. |
| **14.6.** Special precautions for user | No special precautions necessary. |
| **14.7.** Transport in bulk – Maritime only. | Bulk transport is not applicable to this product |

Special Provision 291
Refrigerating machines and refrigerating machine components are not subject to the provisions of this Code if they contain less than 12 kg of gas.

## Section 15. Regulatory Information.

**15.1.** Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

**15.2.** Chemical safety assessment
No data available

## Section 16. Additional Information.

Full text of Phrases and Statements used in Section 3;
H220 Extremely flammable gas.

The above information is believed to be accurate and represents the best information currently available.
No warranty is expressed or implied by the above information.
We assume no liability resulting from use of the above information.
The end user should conduct their own investigations to determine the suitability of the above information for their particular purpose.

| Issue level | Date | Revisions |
|---|---|---|
| 1 | 21/02/2024 | First issue. |
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| | | |

End of Safety Data Sheet.