

Hamex Fuel Cell Pvt Ltd
Safety data Sheet f
According to regulation (EC) No 1907/2006

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Fuel cell cartridges/Aerosol

1.2. Used advised against

Presently no information available

1.3 Company /undertaking identification

Hamex Fuel Cell Pvt Ltd
Plot No: 73, B U Bhandari Industrial Estate
L & T Phata, Sanaswadi,
Pune: 412208, India

1.4 Emergency telephone

+91 206410 4861

Section 2: Hazards Identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) no.1272/2008(CLP)

H222: Extremely Flammable Aerosol

H229: Pressurized container may burst if heated

Classification according to directives 67/548/EEC and 1999/45/EC

F +, R 12 –Extremely flammable

2.2 Label el Elements

Labeling according to regulation (EC) 1272/2008(CLP)



DANGER

Precautionary Statements

Strictly to be used in No smoking area

Should be away from Ignition sources

Avoid Skin Contact

Keep away from heat, hot surfaces, sparks and open flames

Protect from sunlight

To be used & stored in well ventilated areas.

To be disposed as hazardous waste.

Do not expose to temperature exceeding 50 C.

Section 3: Composition/ Information on ingredients

Name	CAS RN	%
Propane	74-98-6	50-60
Iso-Butane	75-28-5	40-50
Butane	106-97-8	1-5

Section 4: FIRST AID MEASURES

4.1.1 General information

Remove contaminated saturated clothing immediately. In case of unwellness Seek immediate Medical advice.

4.1.2 Inhalation:

Do not breathe the gas. May cause asphyxiation in high concentrations or toxic Effect, Supply Patient with fresh air & consult Doctor

4.1.3 Skin:

Direct Contact with Liquefied gas can cause frostbite
Wash exposed area with cold water for at least 10 minutes, don't rub area.
Just flush with water or soak
Do not use hot water, Dress with a clean & dry dressing
Take patient to nearest hospital or Doctor.

4.1.4 Eyes:

Direct Contact with liquefied gas can cause frostbite
Open eyelids allow any gas/fluid to escape
Flush out effected eye with cool water for 15 minutes
Don't allow patient to rub the eyes
If sensitive to light gently apply bandage

4.1.5 Ingestion:

Direct contact with liquefied gas can cause frostbite to internal organs & tissue. Do not induce vomiting
Provide clean, cool drinking water for patient to rinse their mouth & then advise patient, to drink water. If comfortable to them.

4.1.6 Self protection of first Aider:

Pay attention to self-protection

4.2 Most important symptoms and effects, both acute & delayed:

Serious irritations in eyes (Burning and redness)
& serious irritation to skin (Dryness and etching)

4.3 Induction of any immediate medical attention and special treatment needed:

Specific treatment: First Aid:
Decontamination & treatment of symptoms.
NOTE to Director: treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media:

Carbon dioxide/Water jet Spray/Foam/Dry extinguisher
Unsuitable extinguishing media: High volume water jet.

5.2 Fire /Explosive hazard:

Extremely flammable
Will form explosive mixture with air
Flash back may occur if vapor travel to an ignition point.
Aerosols may explode when ruptured
Exposure to gas may cause frostbite, burns or injury
Explosion hazard if exposed to flame or spark.

5.3 Advice for firefighters:

Isolate hazard area & evacuate unprotected personnel
Full emergency equipment with self contained breathing apparatus
& full protecting clothing should be worn by fire fighters.
Prevent spillage from entering drains or waterways
Don't approach heated Aerosols until cooled
Remove Aerosols from path of fire if safe to do so.
In case of fire and /or explosion do not breathe fumes
Use Breathing Apparatus & Gas tight chemical resistant suit.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Minor Spills:

Shut of all sources of ignition
Clear area of all personnel
Do not enter area where gas may have accumulated
Avoid breathing gas and any contact with liquid
Enter the area with protective equipment with breathing apparatus
Remove leaking Aerosols to a safe well ventilated area.
Do not enter the area until gas has been dispersed

6.2 Major Spills

All unprotected personnel must be cleared from the area
Alert emergency service of the incident & location
Enter area with protective equipment & respirator
Turn off all the possible sources of ignition
Use water spray to disperse vapor
Keep clear until gas has dispersed fully & stop entry of unauthorized personnel.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

7.1.1 General recommendations:

Ensure good ventilation

Keep away from sources of ignition – Do not smoke.

Take precautions against electrostatic charges

Only use equipment that suitable for this product and the intended pressure and temperature.

Eating, drinking and smoking as well as food storage is prohibited in work room

Observe directions on label and instruction for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace:

Wash hands before breaks and at the end of work

Keep away from food, drink and animal feeding stuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Condition for safe storage:

Store in well ventilated area, recommended Storage temperature below 50 C

No smoking, naked flame, heat or ignition sources,

Do not store in pits or depressions or where no air circulations occurs.

Keep out of access to unauthorized individuals.

Do not store with flammable or self-igniting materials and store upright.

7.3 Specific and use:

To be used for activating cordless Nailers, bradders & Concrete Nailers.:

Section 8: EXPOSER CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Long-term occupational exposure limit value: 40 mg/m³

Short-term occupational exposure limit value: 80 mg/m³

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Ventilation : Ensure good ventilation. This may be achieved by local suction or general:air extraction.

Eye protection : Eye protection must be worn when handling Aerosols.

Skin protection : Gloves are recommended when handling Aerosols

8.2.2 Individual protection measures, such as personal protective equipment:

In worst case scenario respiratory protection equipment may be required

Under normal use this should be used in well ventilated area

If ventilation is insufficient a suitable breathing device should be worn

General hygiene must be observed as mentioned under **Section 7.1.2**

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information

Appearance	:	Aerosol, Liquid
Odor	:	Odorless
Odor threshold	:	Not applicable
pH	:	Not applicable
Melting/Freeze point	:	-184.5 C approx
Boiling point	:	-42 C to 0 C approx
Flash point	:	-104 C to -60 C approx
Evaporation rate	:	Not determined
Flammability	:	Yes
Lower Explosive limit	:	Not determined
Upper Explosive limit	:	Not determined
Density	:	Not determined
Bulk Density	:	0.54 Kgs/Lt in liquid form approx
Solubility	:	Not determined
Water Solubility	:	Insoluble
Partition coefficient	:	Not determined
Auto ignition temperature	:	494 C approx
Decomposition temperature	:	Not determined
Viscosity	:	Not applicable
Explosive properties	:	Not determined
Oxidizing properties	:	Not determined

9.2 Other information:

Miscibility	:	Not determined
Fat solubility	:	Not determined
Conductivity	:	Not determined
Surface tension	:	Not determined

Section 10: STABILITY AND REACTIVITY

10.1	Reactivity	:	No testing done
10.2	Chemical stability	:	Product is stable in normal working conditions with proper Storage and handling
10.3	Possibility of hazardous reaction	:	No reaction of dangerous kind.
10.4	Conditions to avoid	:	Refer Section 7
10.5	Incompatible materials	:	Strong Acids
10.6	Hazardous decomposition	:	Does not decompose. When used for intended/directed uses

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Acute oral toxicity	:	No adverse effect observed
Acute dermal toxicity	:	No adverse effect observed
Acute inhalation toxicity	:	No adverse effect observed

Skin irritation:

Contact with the skin may cause frostbites, while gas can cause irritation.

Serious Eye damage/Irritation:

Contact may cause irritation or redness

Inhalation:

Asphyxiation may occur if personnel exposed to high concentration of gas

Early indications of asphyxiation are Drowsiness, headaches, dizziness and feeling of weakness & Shortness of breath.

Respiratory or skin sensitization : No indications

Germ cell mutagenicity : Negative

Section 12. ECOLOGICAL INFORMATION

Will vaporize rapidly when released in atmosphere,
Anesthetic to animal and insects at high concentration,
Not expected to pose hazards to aquatic life.
Not inhibitory to plant growth at normal concentration,
Bioaccumulation is not expected

Section 13. DISPOSAL CONSIDERATION**13.1 Waste treatment methods**

Waste disposal should be done according to 2008/98/EC, covering waste and dangerous waste

13.1.1 Product/packaging disposal:

Waste must be disposed of in accordance with local regulations. Waste code should be assigned by the user in discussion with the local waste disposal authorities.

13.1.2 Waste treatment:

Not allowed

13.1.3 Sewage disposal

Prohibited

13.1.3 Other disposal: recommendation

Handle contaminated packages in the same way as the product itself.

Section 14. TRANSPORT INFORMATION

Transport : May be by road/by rail as per national regulations (ADR/RID)

- | | | |
|-------------|-------------------------------------|--|
| 14.1 | UN number | : 1950 |
| 14.2 | UN proper shipping name | : Aerosols |
| 14.3 | Transport Hazard Class | : 2.1 |
| 14.4 | packing Group | : Non |
| 14.5 | Environmental Hazards | : Not applicable |
| 14.6 | Special precautions for user | : Transport is closed containers that the upright and secure |

Ensure that persons transporting the product are well trained and should know what to do in case of an accident or Spillage They must observe safety regulations and take precautions to prevent damage.

14.7 Transport in bulk according to annexure II MARPOL 73/78 and the IBC code

Not applicable

Section 15. REGULATORY INFORMATION

15.1 Safety, an environmental regulations/legislation specific for substance or mixture

In general for classification and labeling see section 2
Ensure restrictions are observed

Compliance is in according with following in EU

1. Commission regulations (EU) No 474/2014 of 8 may 2014
2. Commission regulations (EU) No 944/2013 of 2 Oct 2013 on classification. Labeling and packaging of substance and mixture.
3. Waste framework directive 2008/98/EC

Compliance is in according with following in UK

1. Management of health and safety at work regulations (1999)
2. Control of substances Hazardous to health regulations (COSHH 2002)
3. Personal Protective Equipment Regulations (2002)

15.2 Chemical safety assessment: Not determined.

16. Other information

This product should be stored, handled and used in accordance with good industrial hygiene practices and In conformity with local legal regulations.