

Safety Data Sheet (SDS)

The content and format of this SDS is accordant with 29 CFR 1910.1200 (OSHA standard)

1. Identification of the substance/preparation and of the company/undertaking

Product details:

Product name: Water dispenser

Recommended use of the chemical and restrictions on use: It is used as a refrigerant, plastic foam, pharmaceutical, cosmetic aerosol and medical aerosol propellant. Restrictions on use: Do NOT use it in an application which may contaminate food or do harm to human health.

Manufacturer/Supplier: NINGBO LAMO ELECTRIC APPLIANCE CO., LTD.

Address: RONGYU VILLAGE, XINPU TOWN, CIXI CITY, ZHEJIANG PROVINCE, CHINA.

Tel.: (+86) 574 56776255

Fax: (+86) 574 56776255

Email: trade16@lamo-china.com

Distributor: Curtis International Ltd.

Address: 7045 Beckett Drive, Unit 15, Mississauga, Ontario, Canada L5S 2A3

Further information obtainable from: NINGBO LAMO ELECTRIC APPLIANCE CO., LTD.

Information in case of emergency: (+86) 574 56776255

2. Hazards identification

GHS classification:

Physical hazards	Gases under pressure	Liquefied gas
Health hazards	STOT-single exposure	Category 3 (Narcotic effects)
Environmental hazards	Not classified	

Signal Word: Warning.

Symbol:



Hazard Statements:

H280: Contains gas under pressure; may explode if heated.

H336: May cause drowsiness or dizziness.

Precautionary Statements:

P261: Avoid breathing gas/mist/vapours/spray.

P271: Use only outdoors or in a well-ventilated area.

Response Precautionary Statements:

P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

Storage precautionary statements:

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P410 + P403: Protect from sunlight. Store in a well-ventilated place.

P405: Store locked up.

Disposal precautionary statements:

P501: Dispose of contents/container to relevant local and national regulations. (It is recommended to use incineration method to dispose of waste)

Other hazards: Its high concentrations can reduce the partial pressure of oxygen in the air and may cause hypoxic asphyxiation. It may cause damage such as frostbite when skin and eye contact with liquid products. It will decompose at high temperature (if any open flame or hot metal surface) , and production of HF and fluorocarbon compounds, such as highly toxic carbonyl fluoride (F₂C = O).

3. Composition/information on ingredients

Product description: substance (√); preparation/mixture ()

Ingredient (s)	CAS No.	EC No.	% by weight
1,1,1,2-Tetrafluoroethane	811-97-2	212-377-0	100%

4. First aid measures

Persons using this product should consult a physician or other medical professional if an accident involving this product results in injury. Specific first-aid measures are as follows:

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eyes Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion: Rinse mouth. Do not induce vomiting without professional instruction. Get medical attention immediately if discomfort occurs.

Acute effect and delayed effect: Acute effect: May cause drowsiness or dizziness. Delayed effect: Not found.

Personal protective equipment: Wear protective gloves/protective clothing/eye protection/face protection when necessary.

Indication of immediate medical attention and treatment needed, if necessary: Treat according to symptoms and exposure dose.

5. Fire-fighting measures

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media: High volume water jet. Discharging cylinder shape water from fire hose may lead to spread fire to the surroundings.

Special hazards arising from the chemical: No combustion explosion occurs in the air. It will decompose at high temperature, emits toxic HF and fluorocarbon compounds. It will posing a risk of cracking and explosion, in case of high heat, the internal pressure of the container increases.

Fire Fighting Method:

For initial fire, use dry powder, carbon dioxide, etc.
For large fire, it is effective to use alcohol-resistant foam, etc. to shut off air supply.
Deny unnecessary entry to the place around the fire.
Remove containers from fire area if it can be done without risk.
Use water spray to cool unopened containers.
Extinguish fire from upwind, and the fire extinguishing method should be appropriate to the situation in the surroundings.
Special actions for fire-fighters: Firefighters must wear self-contained breathing apparatus and full protective equipment.
Check whether the protective equipment is in good condition before use.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use proper personal protective equipment as indicated in Section 8.

Environmental precautions: Keep cleaning run-offs out of municipal sewers and open bodies of water. Comply with local and national laws and regulations.

Methods and material for containment and cleaning up:

Small Spill:

Mop up or absorb with an inert dry material (e.g. sand, dry lime) and place in an appropriately labeled waste disposal container.

Large Spill:

Isolate contaminated area and set up a warning board. The persons handling emergency are recommended wearing protective clothing. Do NOT touch spilled material. Keep away from heat and sources of ignition.

Build up dike or dig pit for collection. Spray fog water to cool down and dilute vapor. Dilute the spilled liquid till it is not combustible. Protect the working staff. Collect the spilled material with explosion-proof pump into an appropriate container and transport the waste to the disposal place.

7. Handling and storage

Precautions for safe handling:

Avoid breathing gas/mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

Conditions for safe storage, including any incompatibilities: Store it in a well-ventilated, cool and dry store room. The temperature of the library can not exceed 30°C. Avoid long-time direct contact of sunlight. The storeroom should be equipped with proper facilities for accidental fire. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Store locked up.

Incompatible substances or mixtures: Flammable, combustible, oxidant.

Packing material: No relevant information.

8. Exposure controls/personal protection

Occupational Exposure Limits:

Ingredients	OSHA PEL-TWA	ACGIH TLV-TWA
1,1,1,2-Tetrafluoroethane (CAS: 811-97-2)	--	--

Engineering Controls:

Use this product only in closed systems fully or with local exhaust ventilation.
Install washer eyes and safety showers near to the handling and storage area.
Shows the location of these facilities, with a clear and prominent warning board.

Personal Protective Equipment (For workers):

Protection of Hands:

Wear impermeable rubber gloves. (e.g. Rubber gloves)



Protection of Eyes:

Wear safety glasses when vapour or fume may be generated during processing or working for a long time.



Respiratory Protection:

Use an approved respirator if exposure limits are exceeded or if irritation or other symptoms occur.



Protection of Body:

Recommend wearing general working clothing.



.General protective and hygienic measures:

Wash hands before breaks and at the end of work.
Do not inhale vapour generated from processing.
Avoid contact with eyes and skin.

. Physical and chemical properties

General Information	
Form	Water dispenser (containing refrigerant)
Color	Colorless and transparent
Odor	Slight ether smell
Odor threshold	No data available
pH	No data available

Melting point/freezing point	No data available
Initial boiling point and boiling range	-26.1 °C
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas, etc.)	No data available
Upper/lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Density	1206 kg/m ³ (25°C) (Liquid)
Saturated vapor density (Boiling point)	5.25 kg/m ³
Critical temperature (K)	374.25
Critical pressure (MPa)	4.06
Relative vapour	No data available
Solubility (ies)	It has a certain solubility in water, and soluble in alcohol and ether.
Partition coefficient: n-octanol/Water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

10. Stability and reactivity

Reactivity and Chemical stability: Stable under recommended storage conditions. Do not mix with oxygen or air above atmospheric pressure.

Possibility of hazardous reactions: No relevant information.

Conditions to Avoid: High temperature.

Incompatible materials: Flammable, combustible, oxidant.

Hazardous decomposition products: Toxic HF and fluorocarbon oxides.

11. Toxicological information

Product Toxicity Data:

Ingredient (s)	CAS No.	LD ₅₀ /LC ₅₀ (Median lethal dose)
1,1,1,2-Tetrafluoroethane	811-97-2	Acute toxicity (Inhalation: Gases) LC ₅₀ > 500,000 ppm (rat) Data source: NITE-CHRIP
Classification of the whole product:		Not classified

Skin corrosion/irritation No classification for this product.

Serious eye damage/eye irritation No classification for this product.

Respiratory sensitizer No classification for this product.

Skin sensitizer No classification for this product.

Germ cell mutagenicity No classification for this product.

Carcinogenicity No classification for this product.

Reproductive Toxicity No classification for this product.

STOT-single exposure	1,1,1,2-Tetrafluoroethane (CAS: 811-97-2): Category 3 (Narcotic effects) (NITE-CHRIP) Classification of the whole product: Category 3 (Narcotic effects)
STOT-repeated exposure	No classification for this product.
Aspiration hazard	No classification for this product.

12. Ecological information

Ecotoxicity:

1,1,1,2-Tetrafluoroethane (CAS: 811-97-2):

96h-LC₅₀: 450 mg/L, fish

48h-EC₅₀: 980 mg/L, Crustaceans

Data source: NITE-CHRIP

Classification of the whole product: Not classified.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other adverse effects: No relevant information.

13. Disposal considerations

Waste treatment methods:

It is recommended to use incineration method to dispose of waste.

Any disposal practice must be in compliance with country, local, state, and federal laws and regulations.

After contents are completely removed, dispose of its container at hazardous or special waste collection point.

Paste a label on the container indicating the possible hazards of the waste.

14. Transport Information

DOT/Air-Transportation- IATA/ICAO/Sea-Transportation-IMO/IMDG:

Proper Shipping Name: REFRIGERATING MACHINES containing non-flammable, non-toxic, gases or ammonia solutions (UN2672)

Hazard Class: 2.2

UN Code: 2857

Packing Group: Not applicable.

Packing Group Symbol:



Marine Pollutant (Yes/No): No.

EMS NO.: F-C S-V

Note:

Check whether the package is completed or sealed before transporting; make sure no damage of packages and prevent goods from falling down during transporting; the transport vehicle should be equipped with facilities for fire-fighting and accidental release handling; do NOT transport this product together with incompatible substances; stay away from fire and areas of high temperature during stopovers.

15. Regulatory information

.United States:

Section 355 (extremely hazardous substances): Not listed.

SARA 313: Not listed.

Clean Water Act:

Chemical Name	CWA - Reportable Quantities	CWA - Hazardous Substances	CWA - Priority Pollutants	CWA - Toxic Pollutants
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Carcinogenicity categories:

Chemical Name	ACGIH	IARC	NTP	OSHA
Not applicable				

Toxic Substances Control Act (TSCA): 1,1,1,2-Tetrafluoroethane (CAS: 811-97-2) is listed in the U.S. Toxic Substances Control Act Chemicals Substance Inventory List.

.Other relevant laws and regulations:

Canada Domestic Substances List (DSL): 1,1,1,2-Tetrafluoroethane (CAS: 811-97-2) is listed in the Canada DSL.

Canada Non-domestic Substance List (NDSL): Not listed.

Candidate List of Substances of very high concern (SVHC) according to ECHA: Not listed.

REACH Regulation Annex XVII Regulation List: Not listed.

REACH Regulation Annex XIV Authorization List: Not listed.

Germany – WGK: Not applicable.

(EC) 1272/2008 Annex VI Table 3.1:

Ingredient(s)	EC No. 1272/2008 Classification	
	CLASS. CODE	HAZARD CODE
Not applicable	Not applicable	Not applicable

Chemical Safety Assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

DISCLAIMER: Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

References:

GHS Annex II
GHS SDS Instruction
ANSI Z400.1/Z129.1-2010
OSHA Hazard Communication Standard (HCS) 2012

Full description of some acronyms:

CAS-Chemical Abstracts Service
EINECS-European Inventory of Existing Commercial Chemical Substances
IMO-International Maritime Organization
IMDG-International Maritime Dangerous Goods
IATA-International Air Transport Association
ICAO-International Civil Aviation Organization
TSCA-Toxic Substances Control Act
OSHA-Occupational Safety and Health Administration
ACGIH- American Conference of Governmental Industrial Hygienists
HSDB- National Library of Medicine (NLM) Toxicology Data Network (TOXNET) Hazardous Substances Data Bank

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