AR Spray

Safety Data Sheet (SDS)

Section 1: Identification

Product name:	AR Spray
Manufacturer:	J. Morita Mfg. Corp. 680 Higashihama Minami-Cho, Fushimi-Ku, Kyoto
Distributor:	J. Morita USA, Inc. 9 Mason, Irvine, CA 92618, USA
Emergency phone number:	CHEMTREC 1-800-424-9300 (US & Canada) CHEMTREC 1-703-527-3887 (Outside US & Canada)

Section 2: Hazard(s) Identification

Classification:	High pressure gas, combustible gas
Hazardous nature:	Combustible Explosive if mixed with air

Section 3: Composition/Information on Ingredients

Single product/mixture: mixture

Chemical name or generic name	Propane	Butane
Content	23.5 wt%	54.9 wt%
Chemical formula	C_3H_8 ($CH_3CH_2CH_3$)	C_4H_{16} ($CH_2CH_2CH_2CH_3$)
CAS No.	74-98-6	106-97-8

Section 4: First-Aid Measures

In case of inhalation:
- · Move to a place with fresh air and keep warm and at rest.
- · Give artificial respiration in case of respiratory arrest, or give oxygen in case of respiratory difficulty. Get medical attention.
- · Unconscious, injured persons should be held and carried in a stable lateral recumbent position.

In case of contact with skin:
- · Take off contaminated clothes and shoes.
- · Flush with plenty of water for at least 15 minutes.
- · Any frostbitten part should be covered with a sterile bandage without rubbing it.

In case of contact with eyes:
- · Flush with plenty of water for at least 15 minutes. Get medical attention.
- · Do not cool the injured person.

Section 5: Fire-Fighting Measures

Extinguishing media: Foam, carbon dioxide, dry chemical, and water spray.

Special fire fighting procedures:
- · Do not extinguish a fire before sealing the leak, otherwise an explosive mixture with air may be caused.
- · After the leak is sealed, extinguish a small scale fire with dry chemical or carbon dioxide, or a large scale fire with foam.
- · For a small scale fire, use dry chemical or carbon dioxide.
- · For a large scale fire, use foam or other extinguishing media intended for chemical industries.

Protection of fire fighting personnel:
- · Protective clothing, self-contained breathing apparatus and rubber boots.

Section 6: Accidental Release Measures

- · Ventilate
- · Seal a leak when it can be done without risk.
- · Stop a machine if in a dangerous area.
- · Remove fire generating sources, inhibit smoke, put out open flames, and prevent electric apparatuses and/or switches that may otherwise cause sparking or arcing from operating.

Section 7: Handling and Storage

Handling:
- · Heat source, sparks and/or open flames are strictly prohibited (no igniting sources allowed).
- · No igniting sources are allowed because flashing may be caused over a distance if evaporated.
- · Do not inhale gases.
- · Contact with eyes, skin, and clothing is to be avoided.
- · Long or repetitive exposure is to be avoided.
- · Complete washing is required after handling.
- · Be sure to handle and store under well-ventilated conditions.
- · Prevent containers from falling, tumbling, or receiving shock.

Storage:
- · Store in a place away from heat sources, sparks, or open flame.
- · Container temperature shall not exceed 40°C/104°F.
- · Store under well-ventilated conditions.
- · Prevent containers from falling, tumbling, or receiving shock.

Section 8: Exposure Controls/Personal Protection

Standard control concentration: not specified

Permissible concentration:

	Propane	Butane
ACGIH TLV	2500 ppm_TWA_	Max. 800 ppm
OSHA PEL	1000 ppm_TWA_	

Protective equipment:
- · Respiratory protection - respiratory protective device
- · Hand protection - protective gloves
- · Eye protection - safety goggles

Section 9: Physical and Chemical Properties

	Propane	Butane
Status	Gas (under atmospheric pressure) or liquid (in pressure vessel)	
Color		Clear and colorless
Odor		Slight ether-like odor
Boiling point	-42.04°C	-0.50°C
Melting point	-187.69°C	-138.4°C
Vapor pressure	0.476 (0°C) 0.810 (20°C)	0.104 (0°C) 0.203 (20°C)
Specific gravity	0.5005 (20°C)	0.579 (20°C)
Gas density	2.020 kg/m^3	2.599 kg/m^3
Liquid density	0.501 kg/L (20°C)	0.579 kg/L (20°C)
Flash point	-90°C	-76°C
Firing point	493°C	427°C
Explosive limits	2.2 - 9.5%	1.8 - 8.5%
Solubility	Slightly soluble in water	Insoluble in water

Section 10: Stability and Reactivity

Heating/combustion:
- · Extremely inflammable
- · Explosive if mixed with air

Contact with water:
- · Not hazardous

Contact with air:
- · The phase of the product left in a liquid state changes very quickly to gas.
- · Releasing the product in a gaseous state generates a large amount of cold mist and explosive mixture, spreading extensively.
- · The product in a vaporous state is heavier than air, moves crawling along the ground surface, and may cause remote backfiring.

Mixing and contacting:
- · May heavily react to strong oxidant.

Section 11: Toxicological Information

Acute toxicity: No data available
Local effect: No data available
Sensitization: No data available
Chronic toxicity/long-term toxicity: No data available
Carcinogenicity: No data available
Mutagenicity: No data available
Reproductive toxicity No data available
Others:

Inhalation:
- · Gas with low toxicity and a weak anesthetic effect.
- · Quick transition to a gaseous state eliminates air (possibly causing choking hazard).
- · Dizziness, nausea, drowsiness, muscle weakness, an excited condition, and unconsciousness

Skin contact:
- · Contact with the product in a liquid state causes frostbite.
- · Frostbitten parts discolor to white.

Eye contact:
- · Contact with the product in a liquid state causes frostbite.

Section 12: Ecological Information* (non-mandatory)

Mobility: No data available
Persistence/degradability: No data available
Teratogenicity: No data available
Ecotoxicity, fish toxicity: No data available

Section 13: Disposal Considerations* (non-mandatory)

- · Use it fully before disposal. (Emission to the air in the liquid state is prohibited.)
- · If releasing the product to the air is inevitable, it should be performed little by little in a fireless and well-ventilated environment.
- · Use an authorized subcontractor for disposing industrial waste.

Section 14: Transport Information* (non-mandatory)

UN Hazard Code: Class 2.1
UN No.: UN 1950
Others:
- · Prevent containers from falling, tumbling, or receiving shock.
- · Container temperature shall not exceed 40°C.
- · No igniting sources are allowed.
- · Delivery vehicles shall be equipped with warning signs, disaster prevention tools, and fire extinguishers.

Section 15: Regulatory Information* (non-mandatory)

N/A

Section 16: Other Information

Date prepared: 03/25/17
References:

- · LP Gas Technology A to Z
- · LP Gas Data Handbook by the Natural Sources Survey of Science and Technology Agency
- · National Laboratory Animal Society Research Report 1979, Bethesda, MD, USA
- · Occupational Health Journal (2001.7) by Japan Society for Occupational Health
- · "TLV and Bels"_2001_ ACGIH
- · IARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS TO HUMANS VOLUME 33

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).