



# BEST INC. LIMITED

ROOMS 803B, 8/F, WEST COAST INTERNATIONAL BUILDING,  
290-296 UN CHAU STREET, CHEUNG SHA WAN, KOWLOON, HONG KONG

## MATERIAL SAFETY DATA SHEET

**R438A**

=====

To: DAYAN REFRIGERATION SUPPLIERS LTD.  
HOLON POB 1829-ZIP CODE 5811702-ISRAEL

Invoice No.: 20250213/0320-MIX  
Date: Apr. 23, 2025

By Vessel: MSC LONDON GT521W  
From: NINGBO, CHINA

Sales Contract No.: BEST20250213-MIX  
To: ASHDOD, ISRAEL

### SECTION I - CHEMICAL PRODUCT

**Chinese Name :** R438A

**Product Name in English :** R438A

### SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Preparation:** Preparation

**Components/Impurities :**

CHEMICAL ENTITY	CAS NO.	PROPORTION
Tetrafluoroethane	811-97-2	44.2%
Pentafluoroethane	354-33-6	45%
Difluoromethane	75-10-5	8.5%
Butane	106-97-8	1.7%
Isopentane	78-78-4	0.6%

### SECTION III - HAZARDS IDENTIFICATION

**Hazards identification :** In high concentrations may cause asphyxiation.

Liquefied gas

Not classified as dangerous preparation.

### SECTION IV - FIRST AID MEASURES

**Inhalation:** Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**Skin contact:** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. For freeze burns, immediately flood burnt area with plenty of warm water (40 - 44 °C) and cover with a clean, dry dressing. Seek immediate medical assistance.

**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice. For freeze burns, immediately irrigate with copious quantities of warm (40 - 44 °C) water for at least 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance.

Transport to hospital or medical centre.

**Ingestion:** Unlikely to be a route of exposure due to high evaporation rate. However, rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If



# BEST INC. LIMITED

ROOMS 803B, 8/F, WEST COAST INTERNATIONAL BUILDING,  
290-296 UN CHAU STREET, CHEUNG SHA WAN, KOWLOON, HONG KONG

---

vomiting occurs give further water. Seek medical advice.

**Notes to physician:** Treat symptomatically.

## SECTION V - FIRE FIGHTING MEASURES

**Specific hazards :** Non-combustible material.

**Fire fighting further advice:** Heating can cause expansion or decomposition leading to violent rupture of containers. On decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

**Hazchem Code:** 2TE

**Suitable extinguishing media:** Not combustible, however, if material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

## SECTION VI - ACCIDENTAL RELEASE MEASURES

If safe, cut off source of leak. If release is large, cut off all ignition sources and evacuate all non-essential personnel from the area. If possible, ventilate the area. If the incident is significant seek immediate assistance from local fire authorities and police. If possible monitor the vapour concentration until dissipated.

## SECTION VII - HANDLING AND STORAGE

**Handling:** Avoid skin and eye contact and inhalation of vapour.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks. This material is classified as a Dangerous Good Class 2.2 Non Flammable, Non Toxic Gas as per the criteria of the Australian Dangerous Goods Code and must be stored in accordance with the relevant regulations.

## SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity. If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use with local exhaust ventilation or while wearing appropriate respirator. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES. Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from polyvinyl chloride (PVC) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. If risk of inhalation exists, wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

## SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

**Form / Colour / Odour:** Clear colourless gas.

**Solubility:** Insoluble in water





# BEST INC. LIMITED

ROOMS 803B, 8/F, WEST COAST INTERNATIONAL BUILDING,  
290-296 UN CHAU STREET, CHEUNG SHA WAN, KOWLOON, HONG KONG

---

## SECTION XV - REGULATORY INFORMATION

**Number in Annex I of Dir 67/548:** Not applicable for preparations

**EC Classification :** Not classified as dangerous preparation. Labelling of cylinders

**-Symbols:** Label 2.2: non flammable non toxic gas

## SECTION XVI - OTHER INFORMATION

**Issuing Date:** 2007/12/22 **Revision Date:** 2012/1/22

The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. It is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

---

*For and on behalf of*  
**End of Document** **BEST INC. LIMITED**  
卓越興業有限公司

.....  
*Authorized Signature(s)*