



# PRODUCT MANUAL >>>

JINHUA SLIHE CHEMICAL CO.LIMITED



## JINHUA SLIHE CHEMICAL CO.LIMITED ;

Add: NO.2777 BINHONG WEST ROAD,JINHUA,ZHEJIANG,CHINA

Office line : +86-579 -8288 1765

Mail : fenny@slihe.net

WhatsApp/WeChat : +86 188 5893 0089

Website : www.slihe.net

Integrity

Collaboration

Innovation

Customer Focus

# COMPANY INTRODUCTION

JINHUA SLIHE CHEMICAL CO . LIMITED is a leading chemical manufacturing company based in Zhejiang , China , which is main production base of refrigerant gas.Our company has been exporting refrigerant gases since 2011, main products include R22,R32,R134a,R410a,R407c,R404a,R507a,R600a,R290a,R1234yf,R152A,R125 and so on , HFO gas such as R1234yf , R513A R448A R449A and other new gas is our important project to satisfy customers' different request.

Our company is close to Yiwu , Ningbo and Shanghai , offers convenient transportation access , which spanning over 6 , 000 square meters , and is supported by an in-house R&D team and a dedicated quality control team of more than a dozen professionals. Adhere to the principle of Quality first , affordable prices , ensuring our products meet the highest standards , our product has been successfully exported to Europe , North America , South America , Africa , Southeast Asia and many other countries , earning stable , long-term partnerships.... We sincerely invite you to experience our products and services—let us demonstrate how we can meet your needs with excellence.

## 【HFCs】

- \* R32

\* R125

\* R134a

\* R143a

\* R152a
- \* R227ea

\* R236fa

\* R404A

\* R407C

\* R410A
- R507A

R245fa

R417A

R407A

R438A
- \* R422D

\* R422B

\* R407F

\* R23

\* R508B

## 【HFO】

- \* R1234yf

\* R1234ze

\* HFO+HFC

\* mixture

## 【HCFCs】

- \* R22

\* R141b

\* R142b

\* R401a
- \* R402a

\* R406a

\* R408a

\* R409a
- \* R415A

\* R418A

## 【HC】

- \* R600a

\* R290

\* R1270

\* R600A+290 MIX
- \* MAPP GAS

\* MAPP PRO

## 【fire extinguishing agent】

- \* Fk5112



### R22

| 二氟一氯甲烷 Chlorodifluoromethane (HCFC-22) UN:1018 CLASS:2.2                       |                     |                            |
|--------------------------------------------------------------------------------|---------------------|----------------------------|
| Package : 250G/300G/500G/800G/900G/1000G/3KG/6.8KG/13.6KG/22.7KG/950KG/20000KG |                     |                            |
| 质量标准                                                                           | Quality index       |                            |
| 纯度                                                                             | Purity              | ≥99.90%                    |
| 水份                                                                             | Water content       | ≤0.001%                    |
| 酸度                                                                             | Acidity             | ≤0.00001%                  |
| 蒸发残渣                                                                           | Evaporation residue | ≤0.01%                     |
| 氯化物 (Cl-) 试验                                                                   | Chloride content    | —                          |
| 外观                                                                             | Appearance          | 无色 不浑浊 Colorless and clear |
| 气味                                                                             | Odor                | 无异味 Odorless               |



### R134a

| 四氟乙烷 Tetrafluoroethane (HFC-134a) UN:3159 CLASS:2.2                                 |                     |                            |
|-------------------------------------------------------------------------------------|---------------------|----------------------------|
| Package : 250G/300G/340G/500G/800G/900G/1000G/3KG/6.8KG/13.6KG/22.7KG/950KG/20000KG |                     |                            |
| 质量标准                                                                                | Quality index       |                            |
| 纯度                                                                                  | Purity              | ≥99.90%                    |
| 水份                                                                                  | Water content       | ≤0.001%                    |
| 酸度                                                                                  | Acidity             | ≤0.00001%                  |
| 蒸发残渣                                                                                | Evaporation residue | ≤0.01%                     |
| 氯化物 (Cl-) 试验                                                                        | Chloride content    | —                          |
| 外观                                                                                  | Appearance          | 无色 不浑浊 Colorless and clear |
| 气味                                                                                  | Odor                | 无异味 Odorless               |



### R404A

| 制冷剂 REFRIGERANT 404A UN:3337 CLASS:2.2         |                     |                                                       |
|------------------------------------------------|---------------------|-------------------------------------------------------|
| Package: 650G/700G/2.7KG/10.9KG/650KG/18000KGS |                     |                                                       |
| Refrigerant Components (%)                     |                     | R-125:42.0-46.0<br>R-143a:51.0-53.0<br>R-134a:2.0-6.0 |
| 质量标准                                           | Quality index       |                                                       |
| 纯度                                             | Purity              | ≥99.8%                                                |
| 水份                                             | Water content       | ≤0.001%                                               |
| 酸度                                             | Acidity             | ≤0.00001%                                             |
| 蒸发残渣                                           | Evaporation residue | ≤0.01%                                                |
| 氯化物 (Cl-) 试验                                   | Chloride content    | ≤0.0001%                                              |
| 外观                                             | Appearance          | 无色 不浑浊 Colorless and clear                            |
| 气味                                             | Odor                | 无异味 Odorless                                          |



### R407C

| 制冷剂 REFRIGERANT R407C UN:3340 CLASS:2.2        |                     |                                                          |
|------------------------------------------------|---------------------|----------------------------------------------------------|
| Package: 650G/800G/2.8KG/11.3KG/840KG/18000KGS |                     |                                                          |
| Refrigerant Components (%)                     |                     | R-32: 21.0-25.0<br>R-125: 23.0-27.0<br>R-134a: 50.0-54.0 |
| 质量标准                                           | Quality index       |                                                          |
| 纯度                                             | Purity              | ≥99.8%                                                   |
| 水份                                             | Water content       | ≤0.001%                                                  |
| 酸度                                             | Acidity             | ≤0.00001%                                                |
| 蒸发残渣                                           | Evaporation residue | ≤0.01%                                                   |
| 氯化物 (Cl-) 试验                                   | Chloride content    | ≤0.0001%                                                 |
| 外观                                             | Appearance          | 无色 不浑浊 Colorless and clear                               |
| 气味                                             | Odor                | 无异味 Odorless                                             |



## R410A

| 制冷剂 REFRIGERANT R410AUN:3163 CLASS:2.2        |                     |                                     |
|-----------------------------------------------|---------------------|-------------------------------------|
| Package:650G/700G/2.8KG/11.3KG/840KG/18000KGS |                     |                                     |
| Refrigerant Components (%)                    |                     | R-32: 48.5-50.5<br>R-125: 49.5-51.5 |
| 质量标准                                          | Quality index       |                                     |
| 纯度                                            | Purity              | ≥99.8%                              |
| 水份                                            | Water content       | ≤0.001%                             |
| 酸度                                            | Acidity             | ≤0.00001%                           |
| 蒸发残渣                                          | Evaporation residue | ≤0.01%                              |
| 氯化物 (Cl-) 试验                                  | Chloride content    | ≤0.0001%                            |
| 外观                                            | Appearance          | 无色 不浑浊 Colorless and clear          |
| 气味                                            | Odor                | 无异味 Odorless                        |



## R507

| 制冷剂 REFRIGERANT R507UN:3163 CLASS:2.2        |                     |                                       |
|----------------------------------------------|---------------------|---------------------------------------|
| Package:650G/800G/2.8KG/11.3KG/740KG/ISOTANK |                     |                                       |
| Refrigerant Components (%)                   |                     | R-125: 49.5-51.5<br>R-143a: 48.5-50.5 |
| 质量标准                                         | Quality index       |                                       |
| 纯度                                           | Purity              | ≥99.8%                                |
| 水份                                           | Water content       | ≤0.001%                               |
| 酸度                                           | Acidity             | ≤0.000001%                            |
| 蒸发残渣                                         | Evaporation residue | ≤0.01%                                |
| 氯化物 (Cl-) 试验                                 | Chloride content    | ≤0.0001%                              |
| 外观                                           | Appearance          | 无色 不浑浊 Colorless and clear            |
| 气味                                           | Odor                | 无异味 Odorless                          |



## R600a

| 异丁烷 Isobutane R600aUN:1969 CLASS:2.1        |                     |                            |
|---------------------------------------------|---------------------|----------------------------|
| Package: 120G/400G/420G/6.5KG/450KG/11000KG |                     |                            |
| 质量标准                                        | Quality index       |                            |
| 纯度                                          | Purity              | ≥99.5%                     |
| 水份                                          | Water content       | ≤20ppm                     |
| 酸度                                          | Acidity             | ≤1ppm                      |
| 蒸发残渣                                        | Evaporation residue | ≤100ppm                    |
| 氯化物 (Cl-) 试验                                | Chloride content    | —                          |
| 外观                                          | Appearance          | 无色 不浑浊 Colorless and clear |
| 气味                                          | Odor                | 无异味 Odorless               |



## R290

| 丙烷 Propane R290UN:1978 CLASS:2.1 |                     |                            |
|----------------------------------|---------------------|----------------------------|
| Package: 370G/5KG/400KG/9800KGS  |                     |                            |
| 质量标准                             | Quality index       |                            |
| 纯度                               | Purity              | ≥99.5%                     |
| 水份                               | Water content       | ≤20ppm                     |
| 酸度                               | Acidity             | ≤1ppm                      |
| 蒸发残渣                             | Evaporation residue | ≤800ppm                    |
| 氯化物 (Cl-) 试验                     | Chloride content    | —                          |
| 外观                               | Appearance          | 无色 不浑浊 Colorless and clear |
| 气味                               | Odor                | 无异味 Odorless               |



## R32

| 二氟甲烷 Difluoromethane (HFC-32)UN:3252 CLASS:2.1 |                     |                            |
|------------------------------------------------|---------------------|----------------------------|
| Package:650G/3KG/9.5KG/10KG/670KG/18000KG      |                     |                            |
| 质量标准                                           | Quality index       |                            |
| 纯度                                             | Purity              | ≥99.90%                    |
| 水份                                             | Water content       | ≤0.001%                    |
| 酸度                                             | Acidity             | ≤0.00001%                  |
| 蒸发残渣                                           | Evaporation residue | ≤0.01%                     |
| 氯化物 (Cl-) 试验                                   | Chloride content    | —                          |
| 外观                                             | Appearance          | 无色 不浑浊 Colorless and clear |
| 气味                                             | Odor                | 无异味 Odorless               |



## R1234yf

| 四氟丙烯 (HFO-1234yf)Un:3161 CLASS:2.1        |                             |               |
|-------------------------------------------|-----------------------------|---------------|
| Package: 5KG/10KG/13.6KG/12L/50L/60L/926L |                             |               |
| 质量标准                                      | Quality index               |               |
| 纯度                                        | Purity                      | >99.9%        |
| 水分                                        | Water content               | <8            |
| 酸度                                        | Acidity                     | Note detected |
| 不凝性气体                                     | Non-condensable Gas at 25°C | 0.09%         |
| 氯化物                                       | Chloride content            | PASS          |
| 高沸残渣                                      | High Boiling Residue        | <0.01         |



## MAPP PRO

| MAPP PROUN:1077 CLASS:2.1 |                                |            |
|---------------------------|--------------------------------|------------|
| 质量标准                      | Quality index                  |            |
| 丙烯                        | Propylene percent %            | 99.52      |
| 净重                        | Total gas                      | 400g(14oz) |
| 插装压力                      | cartridge pressure MPA         | 1.85       |
| 燃烧温度                      | Burning temperature °C         | 1327       |
| 最高燃烧温度                    | Maximum burning temperature °C | 1368       |
| 燃烧时间                      | Burning time (Mins)            | 200        |
| 燃烧残渣                      | Combustion residue             | 2          |



## MAPP GAS

| MAPP GASUN:3161 CLASS:2.1 |                                |              |
|---------------------------|--------------------------------|--------------|
| 质量标准                      | Quality index                  |              |
| 丙烯                        | Propylene percent %            | 50.03        |
| 二甲醚                       | Dimethyl ether percent %       | 30.18        |
| 丙烷                        | Propane percent %              | 19.79        |
| 净重                        | Total gas                      | 453.6g(16oz) |
| 插装压力                      | cartridge pressure MPA         | 1.85         |
| 燃烧温度                      | Burning temperature °C         | 1312         |
| 最高燃烧温度                    | Maximum burning temperature °C | 1350         |
| 燃烧时间                      | Burning time (Mins)            | 260          |
| 燃烧残渣                      | Combustion residue             | 3            |

|                                                                                        |                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>R152a+DME</b><br>二氟乙烷+二甲醚<br>Difluoroethane+Dimethyl ether<br>UN: 3161    CLASS:2.1 | Package : Refillable cylinder-400L, 800L,926L,ISOTANK<br><br>Application:It is a low-GWP flammable mixture,has long been used as a blowing agent for several plastic materials. |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                           |                                                                                                                                     |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>R152a</b><br>二氟乙烷<br>Difluoroethane (HFC-152a)<br>UN:1030    CLASS:2.1 | Package : 10KG,926L, ISOTANK<br><br>Application:Used for Refrigerant, also used as raw material for refrigerants aerosol detergent. |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|

|                                                                |                                                                                                                  |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>R508B</b><br>制冷剂 REFRIGERANT R508B<br>UN:1078    CLASS: 2.2 | Package : 11.3kg, 400L , 800L,926L, ISOTANK<br><br>Application:Used for cryogenic refrigerant,can replace R-503. |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|

|                                                      |                                                                                                                                              |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>R23</b><br>三氟甲烷 (HFC-23)<br>UN:1984    CLASS: 2.2 | Package:8kg,30kg<br><br>Application:As ultralow temperature refrigerant,to replace R13 and R503.Also can be as fire suppression clean agent. |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                               |                                                                                                                                                              |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HFC245fa</b><br>五氟丙烷<br>Perfluoropropane (R245fa)<br>UN: 3163    CLASS:2.2 | Package : 13.6kg,100kg,1000kg, 20000kg<br><br>Application:As a third generation alternative blowing agent,instead of CFC,HCFC,and also replace R123 and R22. |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                             |                                                                                                                                     |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>R1270</b><br>丙烯 Propylene(R1270)<br>UN:1077    CLASS:2.1 | Package : 5kg,9kg,13.6kg,120kg, 410kg,950kg,ISOTANK<br><br>Application:Used as refrigerant, it is an important raw material for PP. |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                          |                                                                                                                                                    |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HFC227ea</b><br>七氟丙烷 Trifluoromethane<br>Fluoroform (R227ea)<br>UN: 3296    CLASS:2.2 | Package : 13.6kg,100kg,1000kg, 20000kg<br><br>Application:Can replace Halon 1301 by NEPA-2001,mainly used for total flooding extinguishing system. |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                   |                                                                                                                                                                    |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>REFRIGERANT GAS R448A</b><br>二氟乙烷+二甲醚<br>UN: 3163    CLASS:2.2 | Package : 10kg,11.3kg,60L,926L,ISOTANK<br><br>Application:Widely used in air conditioning, refrigerator, freezer and other refrigeration equipment,can replace R2. |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                       |                                                                                                                                                                 |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>REFRIGERANT GAS R449A</b><br>UN: 3163    CLASS:2.2 | Package : 10kg,11.3kg,60L,926L,ISOTANK<br><br>Application:It is an HFO class refrigerant, mainly used to replace R22, R404a, R507 and R407 series refrigerants. |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                       |                                                                                                                                                                                                                 |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>REFRIGERANT GAS R513A</b><br>UN: 1078    CLASS:2.2 | Package : 5kg,10kg,11.3kg,60L, 926L,ISOTANK<br><br>Application:Replace R134a refrigerant in air conditioning or medium temperature commercial refrigeration systems, including direct expansion and centrifuges |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                       |                                                                                                                                                                                                                    |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>REFRIGERANT GAS R438A</b><br>UN: 1078    CLASS:2.2 | Package : 11.3kg,400L,926L,ISOTANK<br><br>Application:Multifunctional refrigerant that can replace R22 in direct expansion air conditioning and refrigeration systems for domestic and commercial air conditioning |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                       |                                                                                                                                                                                                                                    |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>REFRIGERANT GAS R422D</b><br>UN: 3163    CLASS:2.2 | Package : 11.3kg,12.3L,60L,926L; Mapp can, ISOTANK<br><br>Application:Multifunctional refrigerant that can replace R22 in direct expansion air conditioning and refrigeration systems for domestic and commercial air conditioning |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                       |                                                                                |
|-------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>REFRIGERANT GAS R417A</b><br>UN: 1078    CLASS:2.2 | Package : 11.3kg,12.3L,60L , 926L; ISOTANK<br><br>Application:can replace R22. |
|-------------------------------------------------------|--------------------------------------------------------------------------------|

|                                                       |                                                                                                                       |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>REFRIGERANT GAS R407F</b><br>UN: 1078    CLASS:2.2 | Package: 11.3kg,12.3L,60L,926L,ISOTANK<br><br>Application:Medium and high temperature refrigerants widely used today. |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|

|                                                       |                                                                                                                                                                                                                                           |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>REFRIGERANT GAS R407A</b><br>UN: 3338    CLASS:2.2 | Package : 11.3kg,12.3L,60L,926L, ISOTANK<br><br>Application:R407A is an HFC refrigerant blend developed to replace R22 and meet the global phase-out of chlorine-containing refrigerants. Mainly used in commercial refrigeration systems |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>R1234ze</b><br>1,3,3,3-四氟丙烯(HFO-1234ze )<br>1,3,3,3-Tetrafluoropropene (HFO-1234ze)<br>UN:3163    CLASS:2.2 | Package:220G,250G,300G,340G,800G, 4.5KG,5KG,8KG,600KG,15000KG<br><br>Application: HFOs, an important chemical material intermediate, and a widely used alternative to high-GWP first-generation refrigerants such as R134a and R125. |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## PACKAGE

