



**Air Conditioning Products  
Tools, Equipment & Refrigerant**


# SAFETY DATA SHEET

OSHA HazCom Standard 29 CFR 1910.1200(g), Rev. 2012 and GHS Rev 03.

## 1. Identification


Product identifier  
 Trade name R-1234yf AC Compressor Fluid  
 Product description R-1234yf AC Compressor Fluid  
 Details of the supplier of the safety data sheet  
 Manufacturer/supplier FJC AC Products  
 101 Commercial Dr - Mooresville, NC 28115  
 704-664-3587  
 Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)  
 1-800-535-5053 (North America)

## 2. Hazard(s) Identification

Classification of the substance or mixture  GHS07

Label elements

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms  GHS07

Signal word Warning

Hazard statements Harmful if swallowed.  
 Causes skin irritation.  
 Causes serious eye irritation.

## 2. Hazard(s) Identification (continued)

Precautionary statements

Wear protective gloves.  
Wear eye protection / face protection.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
If swallowed: Call a poison center/doctor if you feel unwell.  
Specific treatment (see on this label).  
If skin irritation occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Rinse mouth.  
If on skin: Wash with plenty of water.  
Take off contaminated clothing and wash it before reuse.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system

NFPA ratings (scale 0-4)



Health=1; Fire=1; Reactivity=0



Health=1; Fire=1; Reactivity=0

## 3. Composition / Information on Ingredients

Chemical characterization:

Mixtures

Dangerous Components

Polyalkylene Glycol

9003-



13-8Acute Tox. 4, H302; Skin Irrit. 2, H315;  
Eye Irrit. 2A, H319

## 4. First-aid Measures

Description of first aid measures

General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation: In case of unconsciousness, place patient securely on side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly. If irritation occurs consult a doctor.

After eye contact: Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Immediately call a doctor.

No further relevant information available.

## 5. Fire-fighting Measures

|                                                                               |                                                                                                                                                                         |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extinguishing media                                                           | CO <sub>2</sub> or Powder. Water mist to cool, no direct water spray. Collect spillage.                                                                                 |
| Suitable extinguishing agents                                                 | No further relevant information available.                                                                                                                              |
| Special hazards arising from the substance or mixture Advice for firefighters |                                                                                                                                                                         |
| Protective equipment                                                          | As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes. |

## 6. Accidental Release Measures

|                                                                     |                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | Not required                                                                                                                                                                                                                                                   |
| Environmental precautions                                           | Do not allow to enter sewers/ surface or ground water                                                                                                                                                                                                          |
| Methods and material for containment and cleaning up                | Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13. Ensure adequate ventilation. Dispose of the collected material according to regulations. |
| Reference to other sections                                         | See Section 7 for information on safe handling.<br>See Section 8 for information on personal protection equipment.<br>See Section 13 for disposal information.                                                                                                 |

## 7. Handling and Storage

|                                                              |                                                                                     |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Precautions for safe handling                                | Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. |
| Information about protection against and fires               | No special measures required explosions                                             |
| Conditions for safe storage, including any incompatibilities |                                                                                     |
| Storage                                                      |                                                                                     |
| Requirements to be met by storerooms and receptacles:        | No special requirements                                                             |
| Further information about storage conditions                 | Keep receptacle tightly sealed                                                      |
| Specific end use(s)                                          | No further relevant information available                                           |

## 8. Exposure Controls / Personal Protection

|                                                                             |                                                                                                                                    |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Additional information about design of technical systems Control parameters | No further data; see section 7                                                                                                     |
| Components with occupational exposure limits                                | The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. |
| Additional information                                                      | The lists that were valid during the creation were used as basis.                                                                  |
| Exposure controls                                                           |                                                                                                                                    |
| Personal protective equipment                                               |                                                                                                                                    |

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Breathing equipment

Not required

Protection of hands

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/



Protective the preparation/ the chemical mixture. Select glove material based on gloves penetration times, rates of diffusion and degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection

Tightly sealed goggles

## 9. Physical and Chemical Properties

Information on basic physical and chemical properties

General Information

Appearance

Form

Liquid

Color

See product

Odor

Mild

Odor Threshold

Not determined

pH-value

Not determined

Change in condition

Melting point/Melting range

Not applicable

Boiling point/Boiling range

>570°F (>298°C)

Flash Point

>440°F (>227°C)

Flammability (solid, gaseous)

Not applicable

Ignition temperature

Decomposition temperature

Not determined

Auto-igniting

Not determined

Danger of explosion

Not determined

Explosion limits

Lower

Not determined

Upper

Not determined

Vapor Pressure @ 20 DEG C

<0.003 kPa

Density @ 20 DEG C

0.89-0.97

Relative Density

Not determined

Vapor Density

Not determined

|                                         |                        |
|-----------------------------------------|------------------------|
| Evaporation Rate                        | Not determined         |
| Solubility in/Miscibility with Water    | Not miscible           |
| Partition coefficient (n-octanol/water) | Not determined         |
| <b>Viscosity</b>                        |                        |
| Viscosity - Dynamic                     | Varies with grade      |
| Viscosity - Kinematic                   | Varies with grade      |
| <b>Solvent content</b>                  |                        |
| Organic solvents                        | 0.00%                  |
| Other Information                       | No further information |

## 10. Stability and Reactivity

|                                                  |                                                      |
|--------------------------------------------------|------------------------------------------------------|
| Reactivity                                       | No further relevant information available            |
| Chemical stability                               | Stable under normal conditions                       |
| Thermal decomposition / conditions to be avoided | No decomposition if used according to specifications |
| Possibility of hazardous reactions               | No dangerous reactions known                         |
| Conditions to avoid                              | No further relevant information available            |
| Incompatible materials                           | No further relevant information available            |
| Hazardous decomposition products                 | No dangerous decomposition products known            |

## 11. Toxicological Information

Information on toxicological effects

Acute toxicity

LD/LC50 values that are relevant for classification

9003-13-8 Polyalkylene Glycol Primary irritant effect: Oral: LD50 >300- <2000 mg/kg (rat) Dermal: LD50 >2000 mg/kg (rat)

On the skin Irritant to skin and mucous membranes

On the eye Irritating effect. Causes serious eye irritation

Additional toxicological information The product shows the following dangers according to internally approved calculation methods for preparations: Harmful. Irritant.

Carcinogenic categories

IARC (International Agency for Research on Cancer) None of the ingredients are listed.  
 Group 1 - Carcinogenic to humans  
 Group 2A - Probably carcinogenic to humans  
 Group 2B - Possibly carcinogenic to humans  
 Group 3 - Not classifiable as to its carcinogenicity to humans  
 Group 4 - Probably not carcinogenic to humans

NTP (National Toxicology Program) None of the ingredients are listed

OSHA-Ca (Occupational Safety & Health Administration) None of the ingredients are listed

## 12. Ecological Information

|                                   |                                                                      |
|-----------------------------------|----------------------------------------------------------------------|
| Toxicity                          | No data is available on this product.                                |
| Aquatic toxicity                  | No further relevant information available                            |
| Persistence and degradability     | No further relevant information available                            |
| Bioaccumulative potential         | No further relevant information available                            |
| Mobility in soil                  | No further relevant information available                            |
| Additional ecological information |                                                                      |
| General notes                     | Water hazard class 1 (Self-assessment): slightly hazardous for water |

## 13. Disposal Considerations

|                     |                                                         |
|---------------------|---------------------------------------------------------|
| Uncleaned packaging | Disposal must be made according to official regulations |
|---------------------|---------------------------------------------------------|

## 14. Transportation Information

|                                                                                          |                        |
|------------------------------------------------------------------------------------------|------------------------|
| UN-Number                                                                                |                        |
| • DOT, ADR, ADN, IMDG, IATA                                                              | Non-regulated material |
| • UN proper shipping name                                                                |                        |
| • DOT, ADR, ADN, IMDG, IATA                                                              | Non-regulated material |
| • Transport hazard class(es)                                                             |                        |
| • DOT, ADR, ADN, IMDG, IATA                                                              |                        |
| • Class                                                                                  | Non-regulated material |
| • Packing group                                                                          |                        |
| • DOT, ADR, IMDG, IATA                                                                   | Non-regulated material |
| • Environmental hazards                                                                  |                        |
| • Marine pollutant                                                                       | No                     |
| • Special precautions for user                                                           | Not applicable         |
| • Transport in bulk according to Annex II Not applicable of MARPOL73/78 and the IBC Code |                        |
| • UN "Model Regulation"                                                                  | —                      |

## 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Section 355 (extremely: None of the ingredients are listed hazardous substances)

Section 313 (Specific toxic: None of the ingredients are listed chemical listings)

TSCA (Toxic Substances Control Act) 68515-49-1: Diisodecyl Phthalate Proposition 65

Chemicals known to cause cancer None of the ingredients are listed

Chemicals known to cause reproductive None of the ingredients are listed toxicity for females

Chemicals known to cause reproductive None of the ingredients are listed toxicity for males

Chemicals known to cause developmental 68515-49-1: Diisodecyl Phthalate

Carcinogenic categories

EPA (Environmental Protection Agency) None of the ingredients are listed

TLV (Threshold Limit Value established None of the ingredients are listed by ACGIH)

NIOSH-Ca (National Institute for Occupational Safety and Health) None of the ingredients are listed

GHS label elements

Non-regulated material

Hazard pictograms



GHS07

Signal word


Warning

Hazard-determining components of labeling

Polyalkylene Glycol

Hazard statements

Harmful if swallowed. Causes skin irritation. Causes serious eye irritation.

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautionary statements   | <p>Wear protective gloves.</p> <p>Wear eye protection / face protection.</p> <p>Wash thoroughly after handling.</p> <p>Do not eat, drink or smoke when using this product.</p> <p>If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.</p> <p>Continue rinsing.</p> <p>If swallowed: Call a poison center/doctor if you feel unwell.</p> <p>Specific treatment (see on this label).</p> <p>If skin irritation occurs: Get medical advice/attention.</p> <p>If eye irritation persists: Get medical advice/attention.</p> <p>Rinse mouth.</p> <p>If on skin: Wash with plenty of water.</p> <p>Take off contaminated clothing and wash it before reuse.</p> <p>Dispose of contents/container in accordance with local/regional/national/international regulations.</p> |
| National regulations       | The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| State Right to Know        | <p>Polyalkylene Glycol</p> <p>9003- 13-8Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Chemical safety assessment | A chemical safety assessment has not been carried out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## 16. Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

|                     |                |
|---------------------|----------------|
| Date of preparation | 02/19/2016 / 1 |
| Date of Revision    | 03-Jan-2019    |



## Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A