

Scheda di sicurezza del 27/09/2021, revisione 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Mixture identification:

Trade name: POE 80 R-1234yf

Trade code: V60-17-1000

1.2. Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati

Usò raccomandato:

PRODOTTI PER GLI IMPIANTI DI CLIMATIZZAZIONE

Usi sconsigliati:

No data available

1.3. Details of the supplier of the safety data sheet

Company:

VIEROL AG, Karlstraße 19, 26123 Oldenburg, Germany

Tel. n. +49 441 210 20-0

Competent person responsible for the safety data sheet:

info@vierol.com

1.4. Emergency telephone number

Giftinformationszentrum Nord (Göttingen) +49 (0)551/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This product does not meet the applicable classification and labeling criteria pursuant to Regulation (EC) No. 1272/2008 (CLP).

2.2. Label elements

Not relevant

2.3. Other hazards

PBT assessment

This product is not considered to be PBT

VPvB evaluation

This product is not considered to be vPvB

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

N.A.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash thoroughly with soap and water.

In case of eye contact:

Wash off immediately with water.

In case of ingestion:

Do not induce vomiting, seek medical assistance by showing this SDS and the hazard label.

In case of inhalation:

Take the injured person to fresh air and keep him warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

Avoid using water jets. Use water jets only to cool the surfaces of containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

Do not inhale the gases produced by the explosion and combustion.

Burning produces heavy smoke.

5.3. Recommendations for firefighters

Use suitable respiratory equipment.

Collect the contaminated water used to extinguish the fire separately. Do not discharge it into the sewer system. If feasible from a safety point of view, move undamaged containers from the area of immediate danger.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment.

Move people to a safe place.

Consult the protective measures set out in points 7 and 8.

6.2. Environmental precautions

Prevent penetration into the soil / subsoil. Prevent run-off into surface water or the sewer system.

Retain contaminated washing water and eliminate it.

In the event of a gas leak or entry into waterways, soil or the sewer system, inform the responsible authorities.

Material suitable for collection: absorbent, organic material, sand

6.3. Methods and material for containment and cleaning up

Material suitable for collection: absorbent, organic material, sand

Wash with plenty of water.

6.4. Reference to other sections

See also paragraphs 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapors and mists.

At work do not eat or drink.

See also paragraph 8 for recommended protective devices.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials:

None in particular.

Indication for the premises:

Adequately ventilated rooms.

7.3. Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Nobody

8.2. Exposure controls

Eye protection:

Not required for normal use. However, operate according to good working practices.

Skin protection:
No special precautions are required for normal use.

Hand protection:
Not required for normal use.

Respiratory protection:
N.A.

Thermal risks:
N.A.

Environmental exposure controls:
N.A.

Technical and Hygiene Measures
N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State of aggregation
liquid
Shape/Colour
Clear liquid of pale yellow color
Odour
characteristic
PH value
No data available
Boiling point / Boiling range
No data available
Melting point / freezing point
-40°C
Decomposition temperature
No data available
Flash point
240°C
Ignition temperature
No data available
Flammability
No data available
Lower explosion limit
No data available

Upper explosion limit
No data available

Steam pressure
No data available

Relative vapor density
No data available

Relative density
No data available

Density
Value: 0,99 g/cm ³
Reference temperature: 15°C
Method: ASTM D 1298

Solubility in water
Insolubile

Solubility in oil
Soluble

Partition coefficient n-octanol / water (logarithm value)
No data available

Viscosity
Value: 80 cSt
Reference temperature: 40°C
Method: ASTM D 445

Characteristics of the particles
No data available

9.2. Other information

Particular indications
No data available

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability
 - No data available.
- 10.3. Possibility of hazardous reactions
 - Nobody

- 10.4. Conditions to avoid
Stable under normal conditions
- 10.5. Incompatible materials
No data available.
- 10.6. Hazardous decomposition products
No data available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity
No data available

Acute dermal toxicity
No data available

Acute inhalation toxicity
No data available

Skin corrosion / irritation
No data available

Serious eye damage / eye irritation
No data available

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
No data available

Reproduction toxicity
No data available

Carcinogenicity
No data available

Specific target organ toxicity (STOT) - single exposure
No data available

Specific target organ toxicity (STOT) - repeated exposure
No data available

Aspiration hazard
No data available

- ### 11.2. Information on other hazards
- Properties of interference with the endocrine system:

No data available.
Particular indications:
No data available.

SECTION 12: Ecological information

- 12.1. Toxicity
Use according to good working practices, avoiding to disperse the product in the environment.
- 12.2. Persistence and degradability
No data available.
- 12.3. Bioaccumulative potential
No data available.
- 12.4. Mobility in soil
No data available.
- 12.5. Results of PBT and vPvB assessment

PBT Assessment: This product is not considered to be PBT
VPvB Rating: This product is not considered as a vPvB

- 12.6. Other adverse effects
No data available.

SECTION 13: Disposal considerations

- 13.1. Waste treatment methods
Dispose of exhausted products (and emulsions in the case of water-soluble coolant products) and containers by transferring them to authorized companies in compliance with the provisions contained in Presidential Decree No. 691 of 23/08/82 (Compulsory Consortium of Used Oils) and in Part IV of Environmental Code (Legislative Decree no. 152 of 3/4/2006) and subsequent amendments
Do not discharge into sewers, tunnels or waterways. comply with the laws in force
Recover if possible. Operate according to local and national regulations.
Where applicable, refer to the following regulations: 91/156 / EEC, 91/689 / EEC, 94/62 / EC and subsequent amendments.

SECTION 14: Transport information

- 14.1. ADR / RID / ADN transport
The product is not subject to ADR / RID / ADN regulations.
- 14.2. IMDG transport
The product is not subject to IMDG regulations.
- 14.3. ICAO-TI / IATA transport
The product is not subject to ICAO-TI / IATA regulations.
- 14.4. Other informations
No data available.
- 14.5. Dangers for the environment
Information on environmental hazards, if relevant, see 14.1 - 14.3.
- 14.6. Special precautions for users
No data available.
- 14.7. Bulk shipping in accordance with IMO acts
Not relevant

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) n. 1907/2006 (REACH).
EC Regulation 1272/2008 (CLP).
Directive 2012/18 / EU (Seveso)
Regulation (EU) n. 830/2015

National standards

Legislative Decree 81/2008 (Consolidated law on the protection of health and safety in the workplace) and subsequent amendments and Directive 2009/161 / EU - Chemical risk assessment pursuant to Title IX.

Water hazard class (WGK)

Class: nwg (Non-hazardous for water) Classification according to AwSV
Percentage of WGK 3 carcinogenic substances - 0%
Percentage of WGK 2 carcinogens: - 0%
Percentage of carcinogenic substances: - 0%
Percentage of WGK 3 substances: - 0%
Percentage of WGK 3 substances with factor M:: - 0%
Percentage of WGK 3 substances (nwg):: - 0%
Percentage of WGK 2 substances: - 0%
Percentage of WGK 2 substances with factor M:: - 0%
Percentage of WGK 1 substances: - 0%
Percentage of non-hazardous substances in water (nwg): 99.99938%
Percentage of unidentified substances: - 0%
Percentage of unidentified substances (nwg): - 0%
Percentage of floating liquids: 0%

Additional regulations, limitations and legal requirements

Substances listed in the Candidate List (SVHC) according to Article 59 of Regulation (EC) 1907/2006: None
Contained substances subject to authorization according to Annex XIV of Regulation (EC) 1907/2006: None
Restrictions relating to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006: None
Seveso Category: None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

16.1. Indications of changes

02. Labeling according to EC regulation no. 1272/2008 [CLP] · 03. Hazardous ingredients

16.2. Abbreviations and acronyms

LEGEND:

ADR:	Accord européen relative au transport international des marchandises dangereuses par route (European agreement concerning the international transport of dangerous goods by road)
ASTM:	ASTM International, originally known as American Society for Testing and Materials (ASTM) EINECS: European Inventory of Existing Commercial Chemical Substances
EC50:	Effective Concentration 50 (Maximum Effective Concentration for 50% of Individuals)
LC50:	Lethal Concentration 50 (Lethal Concentration for 50% of Individuals)

IC50:	Inhibitor Concentration 50 (Inhibitor Concentration for 50% of Individuals)
NOEL:	No Observed Effect Level
DNEL:	Derived No Effect Level
DMEL:	Derived Minimum Effect Level
CLP:	Classification, Labeling and Packaging
CSR:	Chemical Safety Report
LD50:	Lethal Dose 50 (Lethal Dose for 50% of Individuals)
IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organization
IMDG Code:	International Maritime Dangerous Goods code
PBT:	Persistent, bioaccumulative and toxic (persistent bioaccumulative and toxic substances)
RID:	Règlement concernant le transport International ferroire des marchandises Dangereuses (Regulation concerning the international transport of dangerous goods by rail)
STEL:	Short term exposure limit
TLV:	Threshold limit value
TWA:	Time Weighted Average
EU:	European Union
vPvB:	Very persistent very bioaccumulative (very persistent and very bioaccumulative substances)
N.D .:	Not available.
N.A .:	Not applicable.
VwVwS .:	Text of Administrative Regulation on the Classification of Substances hazardous to waters into Water Hazard Classes (Verwaltungsvorschrift wassergefährdende Stoffe - VwVwS)

16.3. Important literature information and data sources

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Center, Commission of the European Communities.

SAX's Dangerous Properties of Industrial Materials - Eight Edition - Van Nostrand Reinold.

ACGIH - Treshold Limit Values - 1999 Edition.

European Chemicals Agency: www.echa.europa.eu

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification procedure: Calculation method

16.5. Relevant H- and EUH-phrases (Number and full text)

H411 Toxic to aquatic life with long lasting effects.

16.6. Instructional indication

Nobody

16.7. Additional indications

Nobody