

Honeywell Solstice® N40 Refrigerant (R-448A)**10637999**

Version 2.2

Revision Date 08/22/2018

Print Date 09/09/2020

SECTION 1. IDENTIFICATION

Product name : Honeywell Solstice® N40 Refrigerant (R-448A)

Number : 000000017419

Product Use Description : Refrigerant

Manufacturer or supplier's details : Honeywell International Inc.
115 Tabor Road
Morris Plains, NJ 07950-2546

For more information call : 800-522-8001
+1-973-455-6300

(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : Liquefied gas

Color : clear colourless

Odor : slight ether-like

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Classification of the substance or mixture

Classification of the substance or mixture : Gases under pressure, Liquefied gas
Simple Asphyxiant

GHS Label elements, including precautionary statements

Symbol(s)

:



Signal word

: Warning

Hazard statements

: Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.

Precautionary statements

: **Prevention:**

Use personal protective equipment as required.

Storage:

Protect from sunlight. Store in a well-ventilated place.

Hazards not otherwise
classified: May cause frostbite.
May cause cardiac arrhythmia.
May cause eye and skin irritation.**Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Chemical nature : Mixture

| Chemical name | CAS-No. | Concentration |
|-------------------------------------|------------|---------------|
| Difluoromethane | 75-10-5 | 26.00 % |
| Pentafluoroethane | 354-33-6 | 26.00 % |
| 1,1,1,2-Tetrafluoroethane | 811-97-2 | 21.00 % |
| 2,3,3,3-Tetrafluoroprop-1-ene | 754-12-1 | 20.00 % |
| trans-1,3,3,3-Tetrafluoroprop-1-ene | 29118-24-9 | 7.00 % |

SECTION 4. FIRST AID MEASURES

- General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
- Inhalation : Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. Use oxygen as required, provided a qualified operator is present. Call a physician. Do not give drugs from adrenaline-ephedrine group.
- Skin contact : After contact with skin, wash immediately with plenty of water. If there is evidence of frostbite, bathe (do not rub) with lukewarm (not hot) water. If water is not available, cover with a clean, soft cloth or similar covering. If symptoms persist, call a physician.
- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In case of frostbite water should be lukewarm, not hot. If symptoms persist, call a physician.
- Ingestion : Unlikely route of exposure. As this product is a gas, refer to the

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inhalation section. Do not induce vomiting without medical advice. Call a physician immediately.

Notes to physician

Indication of immediate medical attention and special treatment needed, if necessary : Because of the possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should be used with special caution and only in situations of emergency life support. Treatment of overexposure should be directed at the control of symptoms and the clinical conditions. Treat frost-bitten areas as needed.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : The product is not flammable.
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific hazards during firefighting : Contents under pressure.
This product is not flammable at ambient temperatures and atmospheric pressure.
However, this material can ignite when mixed with air under pressure and exposed to strong ignition sources.
Container may rupture on heating.
Cool closed containers exposed to fire with water spray.
Do not allow run-off from fire fighting to enter drains or water courses.
Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.
Fire may cause evolution of:
Halogenated compounds
Hydrogen fluoride
Carbon oxides
Carbonyl halides
- Special protective equipment for firefighters : In the event of fire and/or explosion do not breathe fumes.
Wear self-contained breathing apparatus and protective suit.

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No unprotected exposed skin areas.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Wear personal protective equipment. Unprotected persons must be kept away. Remove all sources of ignition. Avoid skin contact with leaking liquid (danger of frostbite). Ventilate the area. After release, disperses into the air. Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing. Avoid accumulation of vapours in low areas. Unprotected personnel should not return until air has been tested and determined safe. Ensure that the oxygen content is $\geq 19.5\%$.

Environmental precautions : Prevent further leakage or spillage if safe to do so. The product evaporates readily.

Methods and materials for containment and cleaning up : Ventilate the area.

SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe handling : Handle with care. Avoid inhalation of vapour or mist. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Use only in well-ventilated areas. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Follow all standard safety precautions for handling and use of

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compressed gas cylinders.
Use authorized cylinders only.
Protect cylinders from physical damage.
Do not puncture or drop cylinders, expose them to open flame or excessive heat.
Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.
Do not remove screw cap until immediately ready for use.
Always replace cap after use.

Advice on protection against fire and explosion : The product is not flammable.
Can form a combustible mixture with air at pressures above atmospheric pressure.

Storage

Conditions for safe storage, including any incompatibilities : Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Storage rooms must be properly ventilated.
Ensure adequate ventilation, especially in confined areas.
Protect cylinders from physical damage.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Do not breathe vapour.
Avoid contact with skin, eyes and clothing.
Ensure that eyewash stations and safety showers are close to the workstation location.

Engineering measures : General room ventilation is adequate for storage and handling.
Perform filling operations only at stations with exhaust ventilation facilities.

Eye protection : Wear as appropriate:
Safety glasses with side-shields

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If splashes are likely to occur, wear:
Goggles or face shield, giving complete protection to eyes

- Hand protection : Leather gloves
In case of contact through splashing:
Protective gloves
Neoprene gloves
Polyvinyl alcohol or nitrile- butyl-rubber gloves
- Skin and body protection : Avoid skin contact with leaking liquid (danger of frostbite).
Wear cold insulating gloves/ face shield/ eye protection.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Wear a positive-pressure supplied-air respirator.
Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.
For rescue and maintenance work in storage tanks use self-contained breathing apparatus.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Ensure adequate ventilation, especially in confined areas.
Avoid contact with skin, eyes and clothing.
Remove and wash contaminated clothing before re-use.
Keep working clothes separately.

Exposure Guidelines

| Components | CAS-No. | Value | Control parameters | Update | Basis |
|-----------------|---------|--------------------------------|--|--------|--|
| Difluoromethane | 75-10-5 | TWA : Time weighted average | 2,200 mg/m ³ (1,000 ppm) | 2007 | WEEL:US. OARS. WEELs Workplace Environmental Exposure Level Guide |

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| | | | | | |
|-------------------------------|----------|--------------------------------------|----------------------------|------|---|
| Difluoromethane | 75-10-5 | TWA : Time weighted average | (1,000 ppm) | 1994 | Honeywell:Limit established by Honeywell International Inc. |
| Pentafluoroethane | 354-33-6 | TWA : Time weighted average | 4,900 mg/m3 (1,000 ppm) | 2007 | WEEL:US. OARS. WEELs Workplace Environmental Exposure Level Guide |
| Pentafluoroethane | 354-33-6 | TWA : Time weighted average | (1,000 ppm) | | Honeywell:Limit established by Honeywell International Inc. |
| 1,1,1,2-Tetrafluoroethane | 811-97-2 | TWA : Time weighted average | (1,000 ppm) | | Honeywell:Limit established by Honeywell International Inc. |
| 1,1,1,2-Tetrafluoroethane | 811-97-2 | TWA : Time weighted average | 4,240 mg/m3 (1,000 ppm) | 2007 | WEEL:US. OARS. WEELs Workplace Environmental Exposure Level Guide |
| 2,3,3,3-Tetrafluoroprop-1-ene | 754-12-1 | TWA : Time weighted average | (500 ppm) | 2009 | WEEL:US. OARS. WEELs Workplace Environmental Exposure Level Guide |

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| | | | | | |
|-------------------------------------|------------|-------------------------------------|-------------|------------|---|
| 2,3,3,3-Tetrafluoroprop-1-ene | 754-12-1 | TWA : Time weighted average | (500 ppm) | 03 15 2010 | Honeywell:Limit established by Honeywell International Inc. |
| 2,3,3,3-Tetrafluoroprop-1-ene | 754-12-1 | STEL : Short term exposure limit | (1,500 ppm) | 03 15 2010 | Honeywell:Limit established by Honeywell International Inc. |
| trans-1,3,3,3-Tetrafluoroprop-1-ene | 29118-24-9 | TWA : Time weighted average | (800 ppm) | 2012 | WEEL:US. OARS. WEELs Workplace Environmental Exposure Level Guide |
| trans-1,3,3,3-Tetrafluoroprop-1-ene | 29118-24-9 | TWA : Time weighted average | (800 ppm) | 31.03.11 | Honeywell:Limit established by Honeywell International Inc. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------------|---------------------------|
| Physical state | : Liquefied gas |
| Color | : clear colourless |
| Odor | : slight ether-like |
| pH | : Note: neutral |
| Melting point/range | : Note: no data available |
| Boiling point/boiling range | : -45.9 - -39.8 °C |

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|---|---|
| Flash point | : Note: Not applicable |
| Lower explosion limit | : Note: None |
| Upper explosion limit | : Note: None |
| Vapor pressure | : 1,120 kPa at 21.1 °C(70.0 °F) 2,588 kPa at 54.4 °C(129.9 °F) |
| Vapor density | : 2.98 Note: (Air = 1.0) |
| Density | : 1.11 g/cm ³ |
| Water solubility | : Note: no data available |
| Partition coefficient: n-octanol/water | : Note: no data available |
| Auto-ignition temperature | : 628 °C |
| Decomposition temperature | : > 250 °C Note: To avoid thermal decomposition, do not overheat. |

SECTION 10. STABILITY AND REACTIVITY

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| | |
|------------------------------------|--|
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : Hazardous polymerisation does not occur. |
| Conditions to avoid | : Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Decomposes under high temperature. Some risk may be expected of corrosive and toxic decomposition products. Can form a combustible mixture with air at pressures above atmospheric pressure. Do not mix with oxygen or air above atmospheric pressure. |
| Incompatible materials | : Potassium Calcium Powdered metals Finely divided aluminium Finely divided magnesium Zinc |
| Hazardous decomposition products | : Halogenated compounds Hydrogen fluoride Carbonyl halides Carbon oxides |

SECTION 11. TOXICOLOGICAL INFORMATION

| | |
|--|--|
| Acute inhalation toxicity Difluoromethane | : LC50: > 520000 ppm Exposure time: 4 h Species: Rat |
| Pentafluoroethane | : > 769000 ppm Exposure time: 4 h Species: Rat |

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| | |
|--|---|
| 1,1,1,2-Tetrafluoroethane | : LC50: > 500000 ppm Exposure time: 4 h Species: Rat |
| 2,3,3,3-Tetrafluoroprop-1-ene | : LC50: > 400000 ppm Exposure time: 4 h Species: Rat Method: OECD Test Guideline 403 |
| trans-1,3,3,3-Tetrafluoroprop-1-ene | : 100000 ppm Species: Mouse Note: Acute (4-Hour) Inhalation Toxicity Screening Study (mouse): No lethality at >100,000 ppm. LC50: > 207000 ppm Exposure time: 4 h Species: Rat |
| Skin irritation 2,3,3,3-Tetrafluoroprop-1-ene | : Note: Not applicable study technically not feasible |
| trans-1,3,3,3-Tetrafluoroprop-1-ene | : Species: Rabbit Result: No skin irritation Method: OECD Test Guideline 404 |
| Eye irritation 2,3,3,3-Tetrafluoroprop-1-ene | : Note: Not applicable study technically not feasible |
| Sensitisation Difluoromethane | : Cardiac sensitization Species: dogs Note: No-observed-effect level >350 000 ppm |
| Pentafluoroethane | : Cardiac sensitization Species: dogs Note: No-observed-effect level |

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| | |
|---|---|
| | 75 000 ppm Lowest observed effect level 100 000 ppm |
| 1,1,1,2-Tetrafluoroethane | : Cardiac sensitization Species: dogs Note: No-observed-effect level 50 000 ppm Lowest observed effect level 75 000 ppm |
| 2,3,3,3-Tetrafluoroprop-1-ene | : Dermal Note: Not applicable, as this product is a gas. study technically not feasible |
| trans-1,3,3,3-Tetrafluoroprop-1-ene | : Cardiac sensitization Species: dogs Note: Did not cause sensitisation on laboratory animals. |
| Repeated dose toxicity Difluoromethane | : Species: Rat Application Route: Inhalation Exposure time: (90 d) NOEL: 50000 ppm Subchronic toxicity |
| Pentafluoroethane | : Species: Rat Application Route: Inhalation Exposure time: (4 Weeks) NOEL: 50000 ppm Subchronic toxicity |
| 1,1,1,2-Tetrafluoroethane | : Species: Rat NOEL: 40000 ppm |
| 2,3,3,3-Tetrafluoroprop-1-ene | : Species: Rat Application Route: Inhalation Exposure time: (2 Weeks) No-observed-effect level: 50000 ppm Method: OECD Test Guideline 412 |

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Species: Rat
Application Route: Inhalation
Exposure time: (4 Weeks)
NOAEL (No observed adverse effect level): 50000 ppm
Method: OECD Test Guideline 412

Species: Rat
Application Route: Inhalation
Exposure time: (13 Weeks)
NOAEL (No observed adverse effect level): 50000 ppm
Method: OECD Test Guideline 413

Species: Rabbit, male
Application Route: Inhalation
Exposure time: (28 d)
No-observed-effect level: 500 ppm
Method: OECD Test Guideline 412
There are no observed toxicological effects, which result in classification as a specific target organ toxicant.

Species: Rabbit, female
Application Route: Inhalation
Exposure time: (28 d)
No-observed-effect level: 1000 ppm
Method: OECD Test Guideline 412
There are no observed toxicological effects, which result in classification as a specific target organ toxicant.

Species: Mini-pig
Application Route: Inhalation
Exposure time: (28 d)
NOAEL (No observed adverse effect level): 10000 ppm
highest exposure tested

trans-1,3,3,3-Tetrafluoroprop-1-ene : Species: Rat
Application Route: Inhalation
Exposure time: (13 Weeks)
NOEL: 5000 ppm
Causes mild effects on the heart.

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Genotoxicity in vitro

- Difluoromethane : Test Method: Ames test
Result: negative
- Pentafluoroethane : Test Method: Ames test
Result: negative
- 1,1,1,2-Tetrafluoroethane : Note: In vitro tests did not show mutagenic effects
- 2,3,3,3-Tetrafluoroprop-1-ene : Test Method: Ames test
Result: 20% and higher, positive in TA 100 and e. coli WP2 uvrA, negative in TA98, TA100, and TA1535.
Method: OECD Test Guideline 471
- trans-1,3,3,3-Tetrafluoroprop-1-ene : Test Method: Chromosome aberration test in vitro
Cell type: Human lymphocytes
Result: negative
- : Cell type: Human lymphocytes
Result: negative
Method: Mutagenicity (in vitro mammalian cytogenetic test)
- : Test Method: Chromosome aberration test in vitro
Result: negative
- : Cell type: Human lymphocytes
Result: negative
- : Cell type: Chinese Hamster Ovary Cells
Result: negative
- : Test Method: Chromosome aberration test in vitro
Cell type: Human lymphocytes
Result: negative
Method: OECD Test Guideline 473
Note: Dose 760,000 ppm
- : Test Method: Ames test
Result: negative

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Genotoxicity in vivo

Difluoromethane

: Species: Mouse
Cell type: Bone marrow
Method: Mutagenicity (micronucleus test)
Result: negative

2,3,3,3-Tetrafluoroprop-1-ene

: Species: Mouse
Cell type: Micronucleus
Dose: up to 200,000 ppm (4 hour)
Method: OECD Test Guideline 474
Result: negative

: Test Method: Unscheduled DNA synthesis
Dose: up to 50,000 ppm (4 weeks)
Method: OECD Test Guideline 486
Result: negative

: Species: Rat
Cell type: Micronucleus
Dose: up to 50,000 ppm (4 weeks)
Method: OECD Test Guideline 474
Result: negative

trans-1,3,3,3-Tetrafluoroprop-1-ene

: Test Method: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Mouse
Cell type: Micronucleus
Application Route: Inhalation
Result: negative

Carcinogenicity

2,3,3,3-Tetrafluoroprop-1-ene

: Species: Rat
Note: Not classified as a human carcinogen. Substance not expected to be a carcinogen based on available data.

Teratogenicity

Difluoromethane

: Species: Rat

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- Dose: NOEL - 50,000 ppm
Note: Did not show teratogenic effects in animal experiments.
- Species: Rabbit
Dose: NOEL - 50,000 ppm
Note: Did not show teratogenic effects in animal experiments.
- Pentafluoroethane : Species: Rabbit
Application Route: Inhalation exposure
NOAEL, Teratog: 50,000 ppm
NOAEL, Maternal: 50,000 ppm
Note: Did not show teratogenic effects in animal experiments.
- Species: Rat
Application Route: Inhalation exposure
NOAEL, Teratog: 50,000 ppm
NOAEL, Maternal: 50,000 ppm
Note: Did not show teratogenic effects in animal experiments.
- trans-1,3,3,3-Tetrafluoroprop-1-ene : Species: Rabbit
Method: Prenatal Developmental Inhalation Toxicity Study
Note: Did not show teratogenic effects in animal experiments.
- Species: Rat
Method: Prenatal Developmental Inhalation Toxicity Study
Note: Did not show teratogenic effects in animal experiments.
- Further information
1,1,1,2-Tetrafluoroethane : Note:
Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.
Rapid evaporation of the liquid may cause frostbite.
Avoid skin contact with leaking liquid (danger of frostbite).

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish

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2,3,3,3-Tetrafluoroprop-1-ene : LC50: > 197 mg/l
 Exposure time: 96 h
 Species: Cyprinus carpio (Carp)
 Method: OECD Test Guideline 203
 Note: No demonstrable toxic effect in saturated solution.

trans-1,3,3,3-Tetrafluoroprop-1-ene : NOEC: > 117 mg/l
 Exposure time: 96 h
 Species: Cyprinus carpio (Carp)

Toxicity to daphnia and other aquatic invertebrates

2,3,3,3-Tetrafluoroprop-1-ene : EC50: > 83 mg/l
 Exposure time: 48 h
 Species: Daphnia magna (Water flea)
 Method: OECD Test Guideline 202

trans-1,3,3,3-Tetrafluoroprop-1-ene : EC50: > 160 mg/l
 Exposure time: 48 h
 Species: Daphnia magna (Water flea)

Toxicity to algae

2,3,3,3-Tetrafluoroprop-1-ene : EC50: > 100 mg/l
 Species: Scenedesmus capricornutum (fresh water algae)
 Method: OECD Test Guideline 201

trans-1,3,3,3-Tetrafluoroprop-1-ene : Growth inhibition
 NOEC: > 170 mg/l
 Exposure time: 72 h
 Species: Algae

Bioaccumulation

2,3,3,3-Tetrafluoroprop-1-ene : Note: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Biodegradability

Difluoromethane : Note: Minimal

Pentafluoroethane : Result: Not readily biodegradable.

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Value: 5 %
Method: OECD 301 D

2,3,3,3-Tetrafluoroprop-1-ene : Result: Not readily biodegradable.
Method: OECD Test Guideline 301F

trans-1,3,3,3-Tetrafluoroprop-1-ene : aerobic
Result: Not readily biodegradable.

Further information on ecology

Additional ecological information : This product is subject to U.S. Environmental Protection Agency Clean Air Act Regulations at 40 CFR Part 82. This product contains greenhouse gases which may contribute to global warming. Do NOT vent to the atmosphere. To comply with provisions of the U.S. Clean Air Act, any residual must be recovered.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT UN/ID No. : UN 3163
Proper shipping name : LIQUEFIED GAS, N.O.S.
(Pentafluoroethane, Difluoromethane,
1,1,1,2-Tetrafluoroethane)
Class : 2.2
Packing group
Hazard Labels : 2.2

IATA UN/ID No. : UN 3163
Description of the goods : LIQUEFIED GAS, N.O.S.
(Pentafluoroethane, Difluoromethane,

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|-------------|--|---|
| | | 1,1,1,2-Tetrafluoroethane) |
| | Class | : 2.2 |
| | Hazard Labels | : 2.2 |
| | Packing instruction (cargo aircraft) | : 200 |
| | Packing instruction (passenger aircraft) | : 200 |
| IMDG | UN/ID No. | : UN 3163 |
| | Description of the goods | : LIQUEFIED GAS, N.O.S. (PENTAFLUOROETHANE, DIFLUOROMETHANE, 1,1,1,2-TETRAFLUOROETHANE) |
| | Class | : 2.2 |
| | Hazard Labels | : 2.2 |
| | EmS Number | : F-C, S-V |
| | Marine pollutant | : no |

SECTION 15. REGULATORY INFORMATION**Inventories**

| | |
|--|--|
| US. Toxic Substances Control Act | : On TSCA Inventory |
| Australia. Industrial Chemical (Notification and Assessment) Act | : On the inventory, or in compliance with the inventory |
| Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) | : All components of this product are on the Canadian DSL |
| Japan. Kashin-Hou Law List | : On the inventory, or in compliance with the inventory |
| Korea. Existing Chemicals Inventory (KECI) | : On the inventory, or in compliance with the inventory |
| Philippines. The Toxic | : Not in compliance with the inventory |

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Substances and Hazardous
and Nuclear Waste Control
Act

China. Inventory of Existing Chemical Substances : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

TSCA 12B : US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

2,3,3,3-Tetrafluoroprop-1-ene 754-12-1

National regulatory information

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E) : Issued.

: 2,3,3,3-Tetrafluoroprop-1-ene 754-12-1

SARA 302 Components : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313 Components** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**SARA 311/312 Hazards** : Sudden Release of Pressure Hazard
Acute Health Hazard

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California Prop. 65

:



WARNING: This product can expose you to chemicals, listed below, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

| | |
|-----------------|---------|
| Dichloromethane | 75-09-2 |
| Chloromethane | 74-87-3 |

Massachusetts RTK

:

| | |
|-----------------|---------|
| Dichloromethane | 75-09-2 |
|-----------------|---------|

Pennsylvania RTK

:

| | |
|-----------------|---------|
| Difluoromethane | 75-10-5 |
|-----------------|---------|

SECTION 16. OTHER INFORMATION

| | HMIS III | NFPA |
|-----------------|-----------------|-------------|
| Health hazard | : 1 | 2 |
| Flammability | : 1 | 1 |
| Physical Hazard | : 0 | |
| Instability | : | 0 |

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given 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. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Honeywell Solstice® N40 Refrigerant (R-448A)

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