SAFETY DATA SHEET





| Issue Date | 01-Jan-2009 | Revision Date | 28-May-2015 | Version | 1 |
|---------------------------|--------------------------------|---------------------------|---|---------|---|
| SECTION 1 : | Identification of the s | ubstance/mixture an | d of the company/undertaking | | |
| 1.1. Prode | uct identifier | | | | |
| Product form | | : Mixture | | | |
| Trade name | | : FJC R134A CHARGI | E WITH STOP LEAK | | |
| Product code | | : 528 | | | |
| 1.2. Relev | vant identified uses of the su | ubstance or mixture and u | see advised against | | |
| Use of the subs | | : Oil Charge | | | |
| | | | | | |
| 1.3. Detai Supplier Ad | Is of the supplier of the safe | ty data sheet | | | |
| FJC | | | | | |
| 101 Comme | | | | | |
| Mooresville, | NC 28115 | | | | |
| 1.4. Emer | gency telephone number | | | | |
| Emergency nu | | : INFOTRAC 1-352-323 | -3500 (International)1-800-535-5053 (North America) | | |
| SECTION 2 | Llagarda identification | | | | |
| SECTION 2: | Hazards identification | | | | |
| 2.1. Class | sification of the substance o | r mixture | | | |
| Classification | (GHS-US) | | | | |
| Liquefied gas H | 280 Repr. | | | | |
| 1B H360 | | | | | |
| Full text of H-ph | arases: see section 16 | | | | |
| i un text of ri-pr | | | | | |
| | | | | | |
| 2.2. Labe | lelements | | | | |
| GHS-US labelin | ng | : | | | |
| Hazard pictogra | ams (GHS-US) | • | • | | |

Signal word (GHS-US) Hazard statements (GHS-US)

Precautionary statements (GHS-US)



- : Danger
- : H280 Contains gas under pressure; may explode if heated H360 May damage fertility or the unborn child

: P201 - Obtain special instructions

P202 - Do not handle until all safety precautions have been read and understood P280 - Wear protective gloves,protective clothing,eye protection,face protection P308+P313 - If exposed or concerned: Get medical advice/attention P405 -Store locked up

P410+P403 - Protect from sunlight. Store in a well-ventilated place

P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

P251 - Pressurized container: Do not pierce or burn, even after use

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

2.3. **Other hazards**

Other hazards not contributing to the classification: Contains gas under pressure; may explode if heated. Intentional misuse and inhalation abuse may cause cardiac or central nervous systems effects. Warning. May Cause frostbite in contact with skin. May Cause frostbite in contact with skin. (Liquid form can be ejected if the aerosol can is not held upright during use.) Warning.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Sub Not applicable Substance

3.2. **Mixture**

| Name | Product identifier | % | Classification (GHS-US) |
|-------------------------------|----------------------|---------|-------------------------|
| 1,1,1,2-Tetrafluoroethane | (CAS No) 811-97-2 | 85 - 95 | Liquefied gas, H280 |
| Polyol Ester | (CAS No) Proprietary | 10 - 30 | Not classified |
| Ester | (CAS No) Proprietary | 1 - 5 | Not classified |
| Proprietary Inhibitor Package | (CAS No) Proprietary | < 1 | Not classified |
| 03/11/2014 | EN (English US) | | 1/7 |

| Name | Product identifier | % | Classification (GHS-US) |
|------------------------|--------------------|-----|-------------------------|
| Benzyl Butyl Phthalate | (CAS No) 85-68-7 | < 1 | Repr. 1B, H360 |

SECTION 4: First aid measures

| 4.1. Description of first aid measures | |
|---|--|
| First-aid measures general | : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. |
| First-aid measures after inhalation | : Assure fresh air breathing. Allow the victim to rest. |
| First-aid measures after skin contact | : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. |
| First-aid measures after eye contact | : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist. |
| First-aid measures after ingestion | : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. |
| | |
| 4.2. Most important symptoms and eff | fects, both acute and delayed |
| 4.2. Most important symptoms and eff Symptoms/injuries | fects, both acute and delayed : May damage fertility or the unborn child. |
| | |
| Symptoms/injuries | : May damage fertility or the unborn child. : Coughing. Irritation of the respiratory tract. May cause an allergic skin reaction. May cause |
| Symptoms/injuries Symptoms/injuries after inhalation | May damage fertility or the unborn child. Coughing. Irritation of the respiratory tract. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Rapid respiration. Slight irritation. |
| Symptoms/injuries Symptoms/injuries after inhalation Symptoms/injuries after skin contact | May damage fertility or the unborn child. Coughing. Irritation of the respiratory tract. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Rapid respiration. Slight irritation. Causes skin irritation. Blisters. May cause moderate irritation. Red skin. Causes eye irritation. Irritation of the eye tissue. Inflammation/damage of the eye tissue. |

No additional information available

| SECTI | ON 5: Firefighting measures | |
|-------------------------------|--|---|
| | SN-0. Firengining measures | |
| 5.1. Suitable | Extinguishing media extinguishing media : Foam. Dry powde : Do not use a heavy water stream. | er. Carbon dioxide. Water spray. Sand. Unsuitable extinguishing media |
| <mark>5.2.</mark> No addit | Special hazards arising from the sub ional information available | ostance or mixture |
| 5.3. | Advice for firefighters | |
| Firefighti | ng instructions | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. |
| Protectio Other inf | n during firefighting ormation | : Do not enter fire area without proper protective equipment, including respiratory protection. : NFPA Aerosol Level 1. |
| SECTI | ON 6: Accidental release meas | sures |
| 6.1. General | Personal precautions, protective equ measures | ipment and emergency procedures : Remove ignition sources. |
| 6.1.1. | For non-emergency personnel | |
| | e equipment | : Gloves. Safety glasses. |
| Emerger | cy procedures | : Evacuate unnecessary personnel. |
| 6.1.2. Protectiv | For emergency responders e equipment | |
| Emerger | ncy procedures | : Equip cleanup crew with proper protection. : Ventilate area. |
| 6.2. | Environmental precautions | |
| Prevent | entry to sewers and public waters. Notify | authorities if liquid enters sewers or public waters. |
| 6.3. | Methods and material for containme | nt and cleaning up |
| For conta | ainment | : Dam up the liquid spill. Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. |
| Methods | for cleaning up | : Store away from other materials. |
| 6.4. | Reference to other sections | |
| | ding 8. Exposure controls and personal p | protection. |
| SECTION | ON 7: Handling and storage | |
| 7.1. | Precautions for safe handling | |
| | al hazards when processed ons for safe handling | Pressurized container: Do not pierce or burn, even after use. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not handle until all safety precautions have been read and understood. Obtain special instructions. |
| Hygiene | measures | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling. Wash contaminated clothing before reuse. |
| 7.2. Technica | Conditions for safe storage, includin Il measures | ig any incompatibilities Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations. |
| Storage | conditions | : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. |
| | tible products | : Strong bases. Strong acids. |
| Incompa Storage | tible materials area | : Sources of ignition. Direct sunlight. : Store in a well-ventilated place. |
| | | |
| 7.3. | Specific end use(s) | |

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Follow Label Directions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| 8.2. Exposure controls | |
|--|---|
| Appropriate engineering controls | : Local exhaust venilation, vent hoods. |
| Personal protective equipment | : Gloves. Safety glasses. Avoid all unnecessary exposure. |
| Materials for protective clothing Hand protection | : neoprene. : Wear protective gloves. |
| Eye protection | : Chemical goggles or safety glasses. |
| Skin and body protection | : Wear suitable protective clothing. |
| Respiratory protection | : Wear appropriate mask. |
| Other information | : Do not eat, drink or smoke during use. |

SECTION 9: Physical and chemical properties

| 9.1. Information on basic physical and o Physical state | chemical properties : Gas | |
|---|---------------------------------------|------|
| | | |
| Appearance | | |
| Color | Liquid. : Red. | |
| Color Odor | . Red. | |
| Odor | | |
| Oden thread ald | Characteristic. Petroleum-like odour. | |
| Odor threshold | | |
| | No data available | |
| рН | | |
| Relative evaporation rate (butyl acetate=1) | No data available | |
| | | |
| Melting point | No data available | |
| Menning point | | |
| Freezing point | No data available | |
| | • | |
| Boiling point | No data available | |
| | · | |
| Flash point | No data available | |
| | · | |
| Auto-ignition temperature | No data available | |
| | | |
| Decomposition temperature | No data available | |
| | Ne dete evellekle | |
| Flammability (solid, gas) | No data available | |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Na data availabla | |
| | No data available | |
| 03/11/2014 | EN (English US) | 4/11 |

| Relative vapor density at 20 °C in No data available Relative density in Soluble in water, Solubility in Soluble in water, Log Pow in Soluble in water, Log Kow in No data available Viscosity, kinematic in No data available Viscosity, kinematic in No data available Viscosity, dynamic in No data available Viscosity dynamic in No data available | | |
|---|---|--------------------------------|
| Relative vapor density at 20 °C : : No data available | Vapor pressure | : |
| Relative density : Solubility : Solubility : Log Pow : Log Kow : No data available : Viscosity, kinematic : Viscosity, kinematic : No data available : Viscosity, dynamic : Viscosity, dynamic : No data available : No data available : Viscosity groperties : No data available : xplosive properties : No data available : xplosive inmits : No data available : Xplosin information : </td <td>Relative vapor density at 20 °C</td> <td>No data available</td> | Relative vapor density at 20 °C | No data available |
| Solubility : indexidual information available in water. Log Kow : No data available in water. Log Kow : No data available in water. Log Kow : No data available in water. Viscosity, kinematic : No data available in water. Viscosity, dynamic : No data available in water. xplosive properties : No data available in water. xplosive properties : No data available in water. xplosive limits : No data available in water. 22. Other information VCC content : No data available in water. 23. Other information VCC content : No data available in water. 24. Other information VCC content : No data available in water. 25. Other information available in water. 26. Other information available in water. 27. Other information available in water. 28. Other information available in the information information available in water. 29. Other information available in the information available information information available information information information available information avai | Relative density | |
| Log Pow : No data available Log Kow : No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available Viscosity, dynamic : No data available xplosive properties : No data available xplosive properties : No data available xplosive limits : No data available 22. Other information . VOC content : 0 % SECTION 10: Stability and reactivity No data available 10.1. Reactivity No additional information available . 10.2. Chemical stability No additional information available . 10.3. Possibility of hazardous reactions Not established. . 10.4. Conditions to avoid Direct sunlight. Externmely high or low temperatures. 10.5. Incompatible materials Storup acids. Storup bases. . 10.6. Hazardous decoomposition products <td< td=""><td>Solubility</td><td>0.965 :</td></td<> | Solubility | 0.965 : |
| Log Kow : No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available : No data available : viscosity, dynamic : No data available : No data available : viscosity, dynamic : No data available : No data available : viscosity, dynamic : No data available : No data available : viscosity, dynamics : No data available : No data available : : : No data available : : : No data available : : : : : <td>Log Pow</td> <td>Insoluble in water.</td> | Log Pow | Insoluble in water. |
| Viscosity, kinematic : No data available No data available xplosive properties : No data available xplosive properties : No data available xplosive limits : No data available xplosive limits : No data available 2. Other information VOC content : 0. Other information available 10. Reactivity Not established. 10. Chemical stability Not established. 10. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10. Incompatible materials Strong acids. Strong bases. 10. Incompatible materials 10. Incompatible materials 10 | Log Kow | No data available |
| Viscosity, dynamic : No data available xplosive properties : No data available xplosive limits : No data available xplosive limits : No data available xplosive limits : No data available 9.2. Other information VCC content : 0 % SECTION 10: Stability and reactivity 10.1. Reactivity No additional information available 10.2. Chemical stability Not established. 10.3. Possibility of hazardous reactions Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Storag acids. Storag bases. 10.6. Hazardous decomposition products Toxic fume . Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information | Viscosity, kinematic | No data available |
| xplosive properties : No data available xidizing properties : No data available xplosive limits : No data available xplosive limits : No data available 9.2. Other information | Viscosity, dynamic | No data available |
| xxidzing properties : No data available xplosive limits : No data available 8.2. Other information VOC content : 0 % SECTION 10: Stability and reactivity 10.1. Reactivity No additional information available 10.2. Chemical stability Not estabilished. 10.3. Possibility of hazardous reactions Not estabilished. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic furme. Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information | | No data available |
| xplosive limits : No data available section : O % SECTION 10: Stability and reactivity 10.1. Reactivity 10.1. Reactivity 10.1. Reactivity 10.2. Chemical stability Not established. 10.3. Possibility of hazardous reactions Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic furme. Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11. Information on toxicological effects | Explosive properties | : No data available |
| 9.2. Other information VOC content : 0 % SECTION 10: Stability and reactivity 10.1. Reactivity No additional information available 10.2. Chemical stability Not established. 10.3. Possibility of hazardous reactions Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic furme. Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | Dxidizing properties | : No data available |
| 9.2. Other information VOC content : 0 % SECTION 10: Stability and reactivity 10.1. Reactivity No additional information available 10.2. Chemical stability Not established. 10.3. Possibility of hazardous reactions Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic furme. Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | Explosive limits | : No data available |
| SECTION 10: Stability and reactivity 10.1. Reactivity No additional information available 10.2. Chemical stability Not established. 10.3. Possibility of hazardous reactions Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic fume Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | 9.2. Other information VOC content | : 0% |
| No additional information available 10.2. Chemical stability Not established. 10.3. Possibility of hazardous reactions Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic fume Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | SECTION 10: Stability and read | tivity |
| No additional information available 10.2. Chemical stability Not established. 10.3. Possibility of hazardous reactions Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic fume Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | 10.1. Reactivity | |
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| Not established. 10.3. Possibility of hazardous reactions Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic fume Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | 10.2. Chemical stability | |
| Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic fume Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | Not established. | |
| 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic fume Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | 10.3 Possibility of bazardous reac | |
| Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic furme Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | | tions |
| 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic fume Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | | tions |
| Strong acids. Strong bases. 10.6. Hazardous decomposition products Toxic fume Carbon monoxide. Carbon dioxide. SECTION 11: Toxicological information 11.1. Information on toxicological effects | Not established. 10.4. Conditions to avoid | |
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| 11.1. Information on toxicological effects | Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low tem | |
| | Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low term 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition pr | oducts |
| Acute toxicity : Not classified | Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low term 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition pr Toxic fume Carbon monoxide. Carbon of | oducts dioxide. |
| | Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low term 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition pr Toxic fume Carbon monoxide. Carbon of SECTION 11: Toxicological info | oducts dioxide. Drmation |

| 1,1,1,2-Tetrafluoroethane (811-97-2) | |
|--------------------------------------|---|
| LC50 inhalation rat (mg/l) | > 2000 mg/l/4h (Rat; Literature study) |
| LC50 inhalation rat (ppm) | > 359300 ppm/4h (Rat; Literature study) |

| Benzyl Butyl Phthalate (85-68-7) | |
|----------------------------------|------------------------|
| LD50 oral rat | 2330 mg/kg (Rat) |
| LD50 dermal rat | 6700 mg/kg (Rat) |
| LD50 dermal rabbit | > 10000 mg/kg (Rabbit) |
| LC50 inhalation rat (mg/l) | > 6.7 mg/l/4h (Rat) |

| Skin corrosion/irritation Serious eye damage/irritation | : Not classified : Not classified |
|--|--------------------------------------|
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |

| Benzyl Butyl Phthalate (85-68-7) | |
|---|--|
| IARC group | 3 |
| | May damage fertility or the unborn child. |
| Reproductive toxicity | |
| Specific target organ toxicity (single exposure) | : Not classified |
| | : Not classified |
| Specific target organ toxicity (repeated exposure) | |
| | : Not classified |
| Aspiration hazard | |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
| Symptoms/injuries after inhalation | : Coughing. Irritation of the respiratory tract. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Rapid respiration. Slight irritation. |
| Symptoms/injuries after skin contact | Causes skin irritation. Blisters. May cause moderate irritation. Red skin. |
| Symptoms/injuries after eye contact | : Causes eye irritation. Irritation of the eye tissue. Inflammation/damage of the eye tissue. Redness of the eye tissue. |
| Symptoms/injuries after ingestion | : May be harmful if swallowed and enters airways. May be fatal if swallowed and enters airways. |

SECTION 12: Ecological information

Toxicity 12.1.

| 1,1,1,2-Tetrafluoroethane (811-97-2) | |
|--------------------------------------|--|
| LC50 fish 1 | 450 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |
| EC50 Daphnia 1 | 980 mg/l (48 h; Daphnia magna) |

| Benzyl Butyl Phthalate (85-68-7) | |
|----------------------------------|---|
| LC50 fish 1 | 1.5 mg/l (96 h; Pimephales promelas; Measured concentration) |
| EC50 Daphnia 1 | 1.6 - 1.8 mg/l (48 h; Daphnia magna) |
| EC50 other aquatic organisms 1 | 0.64 mg/l (72 h; Diatomeae; Growth rate) |
| LC50 fish 2 | 0.82 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Measured concentration) |
| EC50 Daphnia 2 | 0.97 mg/l (48 h; Daphnia magna) |
| Threshold limit algae 1 | 0.20 mg/l (72 h; Diatomeae; Growth rate) |
| Threshold limit algae 2 | 0.31 mg/l (72 h; Scenedesmus subspicatus; Growth rate) |

12.2. Persistence and degradability

| FJC R134A CHARGE WITH STOP LEAK | |
|---------------------------------|------------------|
| Persistence and degradability | Not established. |

| 1,1,1,2-Tetrafluoroethane (811-97-2) | |
|--------------------------------------|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |

| Polyol Ester (Proprietary) | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

| Ester (Proprietary) | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

| Proprietary Inhibitor Package (Proprietary) | |
|---|------------------|
| Persistence and degradability | Not established. |

| Benzyl Butyl Phthalate (85-68-7) | |
|----------------------------------|---|
| Persistence and degradability | Readily biodegradable in water. Forming sediments in water. Biodegradability in soil: no data available. Adsorbs into the soil. |

| 12.3. | 2.3. Bioaccumulative potential | |
|--------|--------------------------------|------------------|
| FJC R | C R134A CHARGE WITH STOP LEAK | |
| Bioaco | cumulative potential | Not established. |

| 1,1,1,2-Tetrafluoroethane (811-97-2) | | |
|--------------------------------------|--|------|
| BCF other aquatic organisms 1 | 5 - 58 (Estimated value) | |
| Log Pow | 1.06 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method) | |
| 03/11/2014 | EN (English US) | 7/11 |

| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
|---------------------------|--|

| Polyol Ester (Proprietary) | |
|----------------------------|------------------|
| Bioaccumulative potential | Not established. |

| Ester (Proprietary) | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

| Proprietary Inhibitor Package (Proprietary) | |
|---|------------------|
| Bioaccumulative potential | Not established. |

| Benzyl Butyl Phthalate (85-68-7) | |
|----------------------------------|----------------------------------|
| BCF fish 1 | 188 (408 h; Lepomis macrochirus) |
| BCF fish 2 | 663 (504 h; Lepomis macrochirus) |
| BCF other aquatic organisms 1 | 26 - 270 |
| Log Pow | 3.57 - 5.8 |
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

No additional information available

| 12.5. | Other adverse effects | |
|------------|--------------------------------|-------------------------------------|
| Other info | ormation | : Avoid release to the environment. |
| | | |
| OFOTI | | |
| SECH | ON 13: Disposal considerations | |

| 13.1. Waste treatm | ent methods | |
|-------------------------|--|--|
| Waste disposal recomm | endations | : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations. |
| Ecology - waste materia | ls | : Avoid release to the environment. |
| SECTION 14: Tran | sport information | |
| In accordance with ADR | R / RID / IMDG / IATA / A | DN |
| | UN1078, Refrigerant g | ases, n.o.s., 2.2, Limited Quantity |
| US DOT (ground): | | |
| ICAO/IATA (air): | UN1078, Refrigerant gases, n.o.s., 2.2, Limited Quantity | |
| IMO/IMDG (water): | UN1078, Refrigerant g | ases, n.o.s. (1,1,1,2-Tetrafluoroethane, Petroleum Distillates), 2.2 |
| Special Provisions: | T50 - this subchapter. | c instruction T50 is referenced in Column (7) of the 172.101 Table, the applicable liquefied uthorized to be transported in portable tanks in accordance with the requirements of 173.313 of |

| 14.2. UN proper shipping name | |
|--|---|
| Proper Shipping Name (DOT) | : Refrigerant gases, n.o.s. |
| Department of Transportation (DOT) Hazard : Classes | 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115 |

| applicable liquefied compressed gases are authorized to be transported in portable accordance with the requirements of 173.313 of this subchapter. DOT Packaging Non Bulk (49 CFR 173.xxx) : 306 DOT Packaging Bulk (49 CFR 173.xxx) : 314;315 14.3. Additional information Other information : No supplementary information available. Overland transport No additional information available Transport by sea DOT Vessel Stowage Location : Passenger aircraft/rail : (49 CFR 173.27) : 75 kg DOT Quantity Limitations Cargo aircraft only (49 : 150 kg CFR 175.75) | Hazard labels (DOT) : | 2.2 - Non-flammable gas |
|---|--|--|
| DOT Special Provisions (49 CFR 172.102) : T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.10: applicable liquefied compressed gases are authorized to be transported in portable accordance with the requirements of 173.313 of this subchapter. DOT Packaging Exceptions (49 CFR 173.xxx) : 306 DOT Packaging Non Bulk (49 CFR 173.xxx) : 304 DOT Packaging Bulk (49 CFR 173.xxx) : 314;315 14.3. Additional information : No supplementary information available. Overland transport No additional information available Transport by sea A - The material may be stowed "on deck" or "under deck" on a cargo vessel and or passenger vessel. Air transport POT Quantity Limitations Passenger aircraft/rail : (49 CFR 173.27) OT Quantity Limitations Cargo aircraft only (49 : 150 kg . Tok kg | | |
| DOT Packaging Non Bulk (49 CFR 173.xxx) : 304 DOT Packaging Bulk (49 CFR 173.xxx) : 314;315 14.3. Additional information Other information Other information : No supplementary information available. Overland transport No additional information available : No supplementary information available. Transport by sea DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and of passenger vessel. Air transport DOT Quantity Limitations Passenger aircraft/rail : (49 CFR 173.27) : 75 kg DOT Quantity Limitations Cargo aircraft only (49 : 150 kg : 150 kg | DOT Symbols : DOT Special Provisions (49 CFR 172.102) : | T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the applicable liquefied compressed gases are authorized to be transported in portable tanks in |
| DOT Packaging Bulk (49 CFR 173.xxx) : 314;315 14.3. Additional information Other information : No supplementary information available. Overland transport No additional information available Transport by sea DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and c passenger vessel. Air transport DOT Quantity Limitations Passenger aircraft/rail : (49 CFR 173.27) 75 kg DOT Quantity Limitations Cargo aircraft only (49 : 150 kg | DOT Packaging Exceptions (49 CFR 173.xxx) : | 306 |
| 14.3. Additional information Other information : No supplementary information available. Overland transport No additional information available Transport by sea A - The material may be stowed "on deck" or "under deck" on a cargo vessel and or passenger vessel. Air transport POT Quantity Limitations Passenger aircraft/rail : (49 CFR 173.27) POT Quantity Limitations Cargo aircraft only (49 : 150 kg CFR 175.75) | DOT Packaging Non Bulk (49 CFR 173.xxx) : | 304 |
| Other information : No supplementary information available. Overland transport No additional information available Transport by sea A - The material may be stowed "on deck" or "under deck" on a cargo vessel and c DOT Vessel Stowage Location - The material may be stowed "on deck" or "under deck" on a cargo vessel and c Air transport - The material may be stowed "on deck" or "under deck" on a cargo vessel and c DOT Quantity Limitations Passenger aircraft/rail : - 75 kg DOT Quantity Limitations Cargo aircraft only (49 : 150 kg CFR 175.75) | DOT Packaging Bulk (49 CFR 173.xxx) : | 314;315 |
| Overland transport No additional information available Transport by sea A - The material may be stowed "on deck" or "under deck" on a cargo vessel and c DOT Vessel Stowage Location - The material may be stowed "on deck" or "under deck" on a cargo vessel and c Air transport - The material may be stowed "on deck" or "under deck" on a cargo vessel and c DOT Quantity Limitations Passenger aircraft/rail : - The material may be stowed "on deck" or "under deck" on a cargo vessel and c (49 CFR 173.27) 75 kg DOT Quantity Limitations Cargo aircraft only (49 : 150 kg - Tho kg | 14.3. Additional information | |
| Overland transport No additional information available Transport by sea A - The material may be stowed "on deck" or "under deck" on a cargo vessel and c DOT Vessel Stowage Location - The material may be stowed "on deck" or "under deck" on a cargo vessel and c Air transport - The material may be stowed "on deck" or "under deck" on a cargo vessel and c DOT Quantity Limitations Passenger aircraft/rail : - The material may be stowed "on deck" or "under deck" on a cargo vessel and c (49 CFR 173.27) 75 kg DOT Quantity Limitations Cargo aircraft only (49 : 150 kg - Tho kg | Other information : | No supplementary information available. |
| A - The material may be stowed fon deck for funder deck on a cargo vessel and c passenger vessel. Air transport DOT Quantity Limitations Passenger aircraft/rail : (49 CFR 173.27) 75 kg DOT Quantity Limitations Cargo aircraft only (49 : 150 kg CFR 175.75) | and the second | |
| (49 CFR 173.27) 75 kg DOT Quantity Limitations Cargo aircraft only (49 : 150 kg CFR 175.75) | DOT Vessel Stowage Location : | A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel. |
| DOT Quantity Limitations Cargo aircraft only (49 : 150 kg CFR 175.75) | | 75 hr |
| SECTION 15: Regulatory information | | |
| | SECTION 15: Regulatory information | |
| 15.1. US Federal regulations | U | |

| FJC R134A CHARGE WITH STOP LEAK | |
|-------------------------------------|---|
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard Sudden release of pressure hazard |

| 1,1,1,2-Tetrafluoroethane (811-97-2) | |
|---|-----------------------------------|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| SARA Section 311/312 Hazard Classes | Sudden release of pressure hazard |

| Polyol Ester (Proprietary) | |
|---|--|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |

15.2. International regulations CANADA FJC R134A CHARGE WITH STOP LEAK 03/11/2014 EN (English US) 9/11

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| WHMIS Classification | Class A - Compressed Gas |
|----------------------|--------------------------|

| 1,1,1,2-Tetrafluoroethane (811-97-2) | |
|--------------------------------------|--------------------------|
| WHMIS Classification | Class A - Compressed Gas |

| Polyol Ester (Proprietary) | |
|----------------------------|---|
| WHMIS Classification | Uncontrolled product according to WHMIS classification criteria |

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD] Not classified 15.2.2. National regulations

Polyol Ester (Proprietary)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

15.3. US State regulations

No additional information available

SECTION 16: Other information

Other information : None. Full text of H-phrases: see section 16:

03/11/2014

EN (English US)

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Liquefied gas | Gases under pressure Liquefied gas | |
|--|---|--|
| Repr. 1B | Reproductive toxicity Category 1B | |
| H280 | Contains gas under pressure; may explode if heated | |
| H360 | May damage fertility or the unborn child | |
| NFPA health hazard | : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given. | |
| NFPA fire hazard | : 0 - Materials that will not burn. | |
| NFPA reactivity | : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently. | |
| | | |
| HMIS III Rating | | |
| - | : 2 Moderate Hazard - Temporary or minor injury may occur | |
| lealth | : 2 Moderate Hazard - Temporary or minor injury may occur : 0 Minimal Hazard | |
| HMIS III Rating Health Flammability Physical | | |

| Issue Date | 01-Jan-2009 |
|---------------|-------------|
| Revision Date | 28-May-2015 |
| Revision Note | New format |

Disclaimer

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.

End of Safety Data Sheet