



Safety Data Sheet

R-1234yf w/UV Dye

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

1.1 Product Identifier

Trade Name: R-1234yf w/UV Dye

Revision Date: 4/24/23

Product Code: BLA031

Created Date: 4/24/23

1.2 Relevant identified uses of the substance or mixture and uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

B'laster LLC
8500 Sweet Valley Drive
Valley View, OH 44125

phone: 817-719-3037 x1002 Ginger Stewart

1.4 Emergency telephone number

CHEMTREC: (800) 424-9300 (USA)
+1-703-741-5970 (International)
Poison Control: (800) 222-1222 (USA)

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

In compliance with OSHA Hazard Communication Standard (29 CFR 1910.1200).
Gases Under Pressure, Liquefied Gases
Flammable Gases, Category 1

2.2 Label elements



Signal Word Danger

Hazard Statements

H220-Extremely flammable gas.
H280-Contains gas under pressure; may explode if heated.

Precautionary Statements

General

P102-Keep out of reach of children.
P103-Read label before use.

Prevention

P210-Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Response

P377-Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

Storage

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

Trade Name: R-1234yf w/UV Dye

Page 1 of 7

SDSID: CUS0014

Revision: 1

Revision Date: 4/24/23



Safety Data Sheet

R-1234yf w/UV Dye

Disposal

P501-Dispose of contents/container to a licensed contractor in accordance with local, state and federal regulations.

2.3 Other hazards

Liquid can cause burns similar to frostbite.
May displace oxygen and cause rapid suffocation.

2.4 Unknown Acute Toxicity (US)

None known.

SECTION 3: Composition / information on ingredient(s)

| Chemical Name | CAS Number | EC # | Concentration % by Weight |
|--|------------|------|---------------------------|
| Oil | - | - | - |
| 2,3,3,3 - Tetrafluoropropene (R1234yf) | 754-12-1 | | 96 |

Additional Information

Ingredients and composition are withheld as trade secret in accordance with 29CFR1910.1200(i).

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

None known.

After inhalation

Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get immediate medical attention if symptoms persist.

After skin contact

Flush skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention if symptoms occur. Wash clothing before reuse. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. In case of contact with liquid, warm frozen tissues slowly with lukewarm water. Do not rub affected area.

After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After ingestion

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Self-protection of the first aider

None known.

4.2 Most important symptoms and effects, both acute and delayed

Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

4.3 Indication of any immediate medical attention and special treatment needed

None known.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

None known.



Safety Data Sheet

R-1234yf w/UV Dye

5.2 Special hazards arising from the substance or mixture

Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

5.3 Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. For incidents involving large quantities, thermally insulated undergarments and thick textile or leather gloves should be worn.

Additional Information

Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not touch or walk through spilled material. Remove all possible sources of ignition. Ensure adequate ventilation. Use appropriate personal protective equipment.

6.2 Environmental precautions

Prevent contamination of water. Prevent material from entering drains or watercourses using sand, earth or other appropriate barriers. Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up

Contain and soak up spill with absorbent material. Place residues in a suitable, sealed and labeled container.

LARGE SPILLS: Shut off leak if safe to do so. Contain spill with inert, absorbent material. Reclaim into recovery or salvage drums or vacuum truck for proper disposal.

6.4 Reference to other sections

None known.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. Avoid contact with skin, eyes and clothing. Do not empty into drains.

7.2 Conditions for safe storage, including any incompatibilities

Do not store above the following temperature: 122°F (50°C). Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Eliminate all ignition sources. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 125 °F (52 °C).

7.3 Incompatibilities/Specific end uses(s)

Incompatibilities None known.

Specific end use(s) None known.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

2,3,3,3 - Tetrafluoropropene (R1234yf) (754-12-1)

500 ppm

AIHA WEEL (TWA).

Trade Name: R-1234yf w/UV Dye

Page 3 of 7

SDSID: CUS0014

Revision: 1

Revision Date: 4/24/23



Safety Data Sheet

R-1234yf w/UV Dye

8.2 Engineering Controls/Exposure Controls

Engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Environmental exposure controls

None known.

8.3 Protective Measures

Eye/face protection

Wear chemical splash goggles. Wear a full face shield where splashing is likely.

Hand protection

Handle with chemical resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Other Skin protection

The types of clothing to be considered for this material include: Chemical/oil resistant clothing is recommended.

Other protection

None known.

Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator.

General hygiene consideration

Wash hands, forearms and face before eating, drinking, smoking and using the restroom. Launder contaminated clothing before re-use.

Thermal hazards

None known.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| Property | Value |
|--|--|
| Autoignition Temperature | 761°F (405°C). |
| Colors | Colorless to neon yellow. |
| Flammable Limits | Extremely flammable in the presence of heat. Lower l |
| Odor | None known. |
| Par. Coeff. (n-Octanol/H ₂ O) | 2. |
| State of Matter | Compressed liquefied gas (aerosol). |
| Water Solubility- Quantitative | 0.2g/L. |

9.2 Other information

None known.

Additional Information

Specific Volume (ft³/lb): 0.9091.

SECTION 10: Stability and Reactivity

10.1 Reactivity

Stable under normal conditions of use.

10.2 Chemical stability

Stable under normal handling and storage conditions.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.



Safety Data Sheet

R-1234yf w/UV Dye

10.5 Incompatible materials

Oxidizers.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Source

| | |
|--|------------------|
| Skin contact | None known. |
| Eye contact | None known. |
| Inhalation | None known. |
| Ingestion | None known. |
| Symptoms related to characteristics | None known. |
| Acute effects | 400,000 ppm; 4h. |
| Chronic effects | None known. |

Numerical measures of Toxicity

| | |
|-------------|--|
| None known. | |
|-------------|--|

| | |
|---|---|
| Skin corrosion/irritation | Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite. |
| Serious eye damage/eye irritation | Irritating to eyes. |
| Respiratory sensitization | None known. |
| Skin sensitization | None known. |
| Carcinogenicity | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA, NTP, or IARC. |
| Germ cell mutagenicity | None known. |
| Reproductive toxicity | None known. |
| Specific target organ toxicity - single exposure | None known. |
| Specific target organ toxicity - repeated exposure | None known. |
| Aspiration hazard | None known. |

SECTION 12: Ecological information

12.1 Toxicity

Ecotoxicological data have not been determined specifically for this product. The information below is given based on knowledge of the components.

Numerical measures of Toxicity

| | |
|-------------|--|
| None known. | |
|-------------|--|

12.2 Persistence and degradability

None known.



Safety Data Sheet

R-1234yf w/UV Dye

12.3 Bioaccumulative potential

Low potential for bioaccumulation.

12.4 Mobility in soil

None known.

12.5 Results of PBT and vPvB assessment

None known.

12.6 Other adverse effects

None known.

12.7 Additional Information

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Handling for disposal

None known.

Methods of disposal

None known.

Contaminated packaging

Dispose of contents/container to a licensed contractor or facility in accordance with local, state and federal regulations.

SECTION 14: Transport Information

D.O.T/ADR/RID - Ground transportation

14.1 UN number

UN3161

14.2 UN proper shipping name

UN3161, Liquefied gas, flammable, n.o.s. (contains 2,3,3,3-Tetrafluoroprop-1-ene), 2.1

14.3 Transport hazard class(es)

2.1

14.4 Packing group

None known.

Air transport (ICAO/IATA)

14.1 UN number

UN3161

14.2 UN proper shipping name

UN3161, Liquefied gas, flammable, n.o.s. (contains 2,3,3,3-Tetrafluoroprop-1-ene), 2.1

14.3 Transport hazard class(es)

2.1

14.4 Packing group

None known.

Sea transport (IMDG)

14.1 UN number

UN3161

14.2 UN proper shipping name

UN3161, Liquefied gas, flammable, n.o.s. (contains 2,3,3,3-Tetrafluoroprop-1-ene), 2.1

14.3 Transport hazard class(es)

2.1

14.4 Packing group

None known.

14.5 Environmental hazards

None known.

14.6. Special precautions for user

None known.

14.7. Transport in bulk according to Annex II of Marpol112 and the IBC Code

Trade Name: R-1234yf w/UV Dye

SDSID: CUS0014

Revision: 1

Revision Date: 4/24/23 Page 6 of 7



Safety Data Sheet

R-1234yf w/UV Dye

None known.

SECTION 15: Regulatory information

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

Country or region

United States of America

Inventory List

Toxic Substance Control Act (TSCA)

Listed or Exempt (yes/no)

Yes

15.2 Chemical Safety Assessment

None known.

SECTION 16: Other Information

Specific Hazard

N/A.

HMIS Ratings

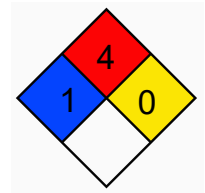
| | |
|----------------------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 4 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | |

1 - Slightly hazardous.

4 - Below 73°F.

0 - Stable, even under fire conditions and will not react with water, etc.

NFPA



Revision Date:

4/24/23

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