

SAFETY DATA SHEET

Revision date 14-Feb-2025

Revision Number 3

1. Identification

Product identifier

Product Name TP9825, UV FLOURESCENT A/C DYE R-1234YF

Other means of identification

Product Code(s) TP9825

UN number or ID number UN3082***

Synonyms TP9825-1, TP9825-P3

Recommended use of the chemical and restrictions on use

Recommended use Refrigerant leak detection

Restrictions on use No information available

Details of the supplier of the safety data sheet

Manufacturer

Spectronics Corporation
265 Spagnoli Road
Melville, NY 11747
USA

E-mail address sds@spectroline.com

Emergency telephone number

Emergency Telephone US & Canada: 800-424-9300 (24 HOURS CHEMTREC)
Outside US & Canada: +1 703-741-5970 (24 HOURS CHEMTREC)

2. Hazard(s) identification

Classification

| | |
|-----------------------|---------------|
| Skin sensitization | Category 1*** |
| Reproductive toxicity | Category 2*** |

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Warning***

Hazard statements

May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child***



Appearance Liquid

Physical state Liquid

Odor Slight

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing must not be allowed out of the workplace***

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention***
IF ON SKIN: Wash with plenty of water and soap
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse***

Precautionary Statements - Storage

Store locked up***

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant***

Other information

Causes mild skin irritation. Toxic to aquatic life with long lasting effects. Toxic to aquatic life.***

3. Composition/information on ingredients

Substance

Not applicable.***

Mixture ***

| Chemical name | CAS No. | Weight-% | Trade secret |
|------------------------|--------------|----------|--------------|
| PAG Oil | Trade secret | 60 - 70% | * |
| decyloxirane | 2855-19-8 | 1.575 | * |
| Anti-Friction Additive | Trade secret | 0 - 10% | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.***

Inhalation

Remove to fresh air.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.
Consult a physician.

Skin contact

Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation

or allergic reactions see a physician.***

Ingestion Rinse mouth.

Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.***

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.***

5. Fire-fighting measures

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical Product is or contains a sensitizer. May cause sensitization by skin contact.***

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.***

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes.***

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.***

8. Exposure controls/personal protection

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).***

Hand protection Wear suitable gloves.***

Skin and body protection Wear suitable protective clothing.***

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.***

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid
Appearance Liquid
Color amber
Odor Slight
Odor threshold No information available

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---|----------------------------|-------------------------|
| pH | No data available | None known |
| Melting point / freezing point | No data available | None known |
| Initial boiling point and boiling range | No data available | None known |
| Flash point | 179 °C*** /*** 354.2 °F*** | None known |
| Evaporation rate | No data available | None known |
| Flammability | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapor pressure | No data available | None known |
| Relative vapor density | No data available | None known |
| Relative density | 0.996 | None known |
| Water solubility | Insoluble in water | None known |

| | | |
|---------------------------|-------------------------|------------|
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | | None known |
| Kinematic viscosity | 73.4 mm ² /s | @ 40 °C |
| Dynamic viscosity | No data available | None known |

Other information

| | |
|----------------------|--------------------------|
| Explosive properties | No information available |
| Oxidizing properties | No information available |
| Softening point | No information available |
| Molecular weight | No information available |
| VOC content | No information available |
| Liquid Density | No information available |
| Bulk density | No information available |

10. Stability and reactivity

| | |
|------------------------------------|---|
| Reactivity | No information available. |
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | None under normal processing. |
| Conditions to avoid | None known based on information supplied. |
| Incompatible materials | None known based on information supplied. |
| Hazardous decomposition products | None known based on information supplied. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|---|
| Product Information | *** |
| Inhalation | Specific test data for the substance or mixture is not available. |
| Eye contact | Specific test data for the substance or mixture is not available. |
| Skin contact | May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes mild skin irritation.*** |
| Ingestion | Specific test data for the substance or mixture is not available. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|----------|--|
| Symptoms | Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.*** |
|----------|--|

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document ***

| | | |
|-------------------------------|--------------|----------|
| ATEmix (oral) | 99,999.00*** | mg/kg*** |
| ATEmix (dermal) | 21,269.80*** | mg/kg*** |
| ATEmix (inhalation-gas) | 99,999.00*** | ppm*** |
| ATEmix (inhalation-dust/mist) | 99,999.00*** | mg/l*** |
| ATEmix (inhalation-vapor) | 99,999.00*** | mg/l*** |

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------------------|-----------------------|--------------------------|------------------------|
| decyloxirane 2855-19-8 | - | > 2000 mg/kg (Rat)*** | - |
| Anti-Friction Additive | > 20000 mg/kg (Rat) | > 10000 mg/kg (Rabbit) | > 5.2 mg/L (Rat) 4 h |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|--|---|
| Skin corrosion/irritation | Classification based on data available for ingredients. Causes mild skin irritation.*** |
| Serious eye damage/eye irritation | No information available. |
| Respiratory or skin sensitization | May cause an allergic skin reaction.*** |
| Germ cell mutagenicity | No information available. |
| Carcinogenicity | No information available. |
| Reproductive toxicity | Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.*** |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Aspiration hazard | No information available. |
| Other adverse effects | No information available. |
| Interactive effects | No information available. |

12. Ecological information

Ecotoxicity Toxic to aquatic life. Toxic to aquatic life with long lasting effects.***

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|------------------------|----------------------|---|----------------------------|-----------|
| Anti-Friction Additive | - | LC50: 0.1 - 0.22mg/L (96h, Lepomis macrochirus) LC50: 0.21 - 0.32mg/L (96h, Oncorhynchus mykiss) LC50: 3.3 - 6.2mg/L (96h, Oncorhynchus mykiss) LC50: 20.4 - 41.2mg/L (96h, Lepomis macrochirus) LC50: 3.2 - 10mg/L (96h, | - | - |

| | | | |
|--|--|---|--|
| | | Oryzias latipes) LC50: 4.8 - 6.4mg/L (96h, Poecilia reticulata) | |
|--|--|---|--|

Persistence and degradability No information available.

Bioaccumulation

Component Information ***

| Chemical name | Partition coefficient |
|---------------------------|-----------------------|
| decyloxirane 2855-19-8 | 5.9*** |
| Anti-Friction Additive | 5.93 |

Other adverse effects No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. Transport information

DOT

UN number or ID number UN3082***
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.***
Transport hazard class(es) 9***
Packing group III***
Special Provisions 8, 146, 173, 335, 441, IB3, T4, TP1, TP29***
DOT Marine Pollutant I***
Marine pollutant decyloxirane, Tris(methylphenyl) phosphate***
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane, Tris(methylphenyl) phosphate), 9, III, Marine pollutant***
Emergency Response Guide Number 171***

TDG

UN number or ID number UN3082***
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s.***
Transport hazard class(es) 9***
Packing group III***
Special Provisions 16, 99***
Marine pollutant name decyloxirane.***
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane), 9, III***

MEX

UN number or ID number UN3082***
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s.***
Transport hazard class(es) 9***
Packing group III***
Technical Name decyloxirane, Tris(methylphenyl) phosphate***
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane,

| | |
|----------------------------|---|
| Special Provisions | Tris(methylphenyl) phosphate), 9, III*** 274, 331, 335, 375*** |
| ICAO (air) | |
| UN number or ID number | UN3082*** |
| UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s.*** |
| Transport hazard class(es) | 9*** |
| Packing group | III*** |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane, Tris(methylphenyl) phosphate), 9, III*** |
| Special Provisions | A97, A158, A197, A215*** |
| IATA | |
| UN number or ID number | UN3082*** |
| UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s.*** |
| Transport hazard class(es) | 9*** |
| Packing group | III*** |
| Technical Name | decyloxirane, Tris(methylphenyl) phosphate*** |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane, Tris(methylphenyl) phosphate), 9, III*** |
| Special Provisions | A97, A158, A197, A215*** |
| ERG Code | 9L*** |
| IMDG | |
| UN number or ID number | UN3082*** |
| UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s.*** |
| Transport hazard class(es) | 9*** |
| Packing group | III*** |
| EmS-No. | F-A, S-F*** |
| Special Provisions | 274, 335, 969*** |
| Marine pollutant | P*** |
| Marine Pollutant | decyloxirane, Tris(methylphenyl) phosphate*** |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane, Tris(methylphenyl) phosphate), 9, III, Marine pollutant*** |
| RID | |
| UN number or ID number | UN3082*** |
| UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s.*** |
| Transport hazard class(es) | 9*** |
| Packing group | III*** |
| Classification code | M6*** |
| Special Provisions | 274, 335, 375, 601*** |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane, Tris(methylphenyl) phosphate), 9, III*** |
| ADR | |
| UN number or ID number | UN3082*** |
| UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s.*** |
| Transport hazard class(es) | 9*** |
| Packing group | III*** |
| Classification code | M6*** |
| Tunnel restriction code | (-)** |
| Special Provisions | 274, 335, 601, 375*** |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane, Tris(methylphenyl) phosphate), 9, III, (-)** |
| ADN | |
| UN number or ID number | UN3082*** |
| UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s.*** |
| Transport hazard class(es) | 9*** |
| Packing group | III*** |
| Classification code | M6*** |
| Special Provisions | 274, 335, 375, 601*** |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane, |

Equipment Requirements

Tris(methylphenyl) phosphate), 9, III***
PP***

15. Regulatory information

International Inventories

| | |
|---------------|------------------|
| TSCA | Complies. |
| DSL/NDSL | Complies. |
| EINECS/ELINCS | Complies. |
| ENCS | Complies. |
| IECSC | Complies. |
| KECI | Complies. |
| PICCS | Does not comply. |
| AIIC | Complies. |
| NZIoC | Complies. |

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AIIC** - Australian Inventory of Industrial Chemicals
- NZIoC** - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|------------------------|------------|---------------|--------------|
| Anti-Friction Additive | X | - | - |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

| | | | | |
|-------------|----------------------|-------------------|--------------------|-----------------------|
| <u>NFPA</u> | Health hazards 2*** | Flammability 1*** | Instability 0 | Special hazards - |
| <u>HMIS</u> | Health hazards 2**** | Flammability 1*** | Physical hazards 0 | Personal protection X |

Chronic Hazard Star Legend * = Chronic Health Hazard***

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: Exposure controls/personal protection

| | | | |
|---------|-----------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | Sk* | Skin designation |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 14-Feb-2025
Revision Note No information available.

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