

# SAFETY DATA SHEET

Revision date 14-Feb-2025

Revision Number 4

## 1. Identification

### Product identifier

**Product Name** TP3825, UV FLOURESCENT A/C DYE R-1234YF

### Other means of identification

**Product Code(s)** TP3825

**UN number or ID number** UN3082\*\*\*

**Synonyms** TP3825-8, TP3825-1P6, TP3825-P12

### 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	80 - 90%	*
Oil Additive	Trade secret	1-3	*
Anti-Friction Additive	Trade secret	0-1	*

\*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	169.5 °C*** /*** 337.1 °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	.989	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	48.5 mm <sup>2</sup> /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.***
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Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral)	99,999.00***	mg/kg***
ATEmix (dermal)	5,825.80***	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**

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Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Oil Additive	-	> 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**

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

**Bioaccumulation**

**Component Information** \*\*\*

Chemical name	Partition coefficient
Oil Additive	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 Phosphoric acid, tris(methylphenyl) esters\*\*\*  
 Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Phosphoric acid, tris(methylphenyl) esters), 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,

<b>Special Provisions</b>	Tris(methylphenyl) phosphate), 9, III*** 274, 331, 335, 375***
<b>ICAO (air)</b>	
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***
<b>Special Provisions</b>	A97, A158, A197, A215***
<b>IATA</b>	
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***
<b>Special Provisions</b>	A97, A158, A197, A215***
<b>ERG Code</b>	9L***
<b>IMDG</b>	
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***
<b>Special Provisions</b>	274, 335, 969***
<b>Marine pollutant</b>	P***
<b>Marine Pollutant</b>	decyloxirane, Tris(methylphenyl) phosphate***
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane, Tris(methylphenyl) phosphate), 9, III, Marine pollutant***
<b>RID</b>	
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***
<b>Special Provisions</b>	274, 335, 375, 601***
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane, Tris(methylphenyl) phosphate), 9, III***
<b>ADR</b>	
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	(-)**
<b>Special Provisions</b>	274, 335, 601, 375***
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (decyloxirane, Tris(methylphenyl) phosphate), 9, III, (-)**
<b>ADN</b>	
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***
<b>Special Provisions</b>	274, 335, 375, 601***
<b>Description</b>	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**

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

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

**16. Other information**

<b>NFPA</b>	Health hazards 2***	Flammability 1***	Instability 0	Special hazards -
<b>HMIS</b>	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**