

SPECTRONICS CORPORATION

MATERIAL SAFETY DATA SHEET

GS-s

Effective: 08/13/03

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Supersedes: 07/09/02

Section 1. Identification of the Substance/Preparation and Company

PRODUCT NAME: GS-1, GS-2, GS-3, GS-101.**DESCRIPTION:** Fluorescent Dye for Air Conditioning and Refrigeration Systems Using Mineral Oil Lubricants **USE:** Leak Detection**EMERGENCY TELEPHONE #:** 800-424-9300 (24 HOURS) CHEMTREC; Call collect outside continental U.S.: 703-527-3887.**PRODUCT INFORMATION:** Spectronics Corporation, 956 Brush Hollow Road, Westbury, NY 11590, 800-274-8888.

For calls originating outside continental U.S.: 516-333-4840.

Section 2. Composition/Information on Ingredients

Product	Common Name/Chemical Name	CAS Number	% W	PEL(mg/m ³)	TLV(mg/m ³)
GS-1	Fluorescent Dye	See Below	5-20	NA	NA
	Lubricant Oil	See Below	80-95	5*	5*
GS-2	Fluorescent Dye	See Below	10-30	NA	NA
	Lubricant Oil	See Below	70-90	5*	5*
GS-3	Fluorescent Dye	See Below	35-55	NA	NA
	Lubricant Oil	See Below	45-65	5*	5*
GS-101	Fluorescent Dye	See Below	40-60	NA	NA
	Lubricant Oil	See Below	60-40	5*	5*

Lubricant Oil: The specific identity has been withheld as a trade secret. New Jersey Trade Secret Registry Number NJ EIN 80100312-5001P.**Fluorescent Dye:** The specific identity has been withheld as a trade secret. New Jersey Trade Secret Registry Number NJ EIN 80100312-5000P.***Airborne Oil Mist Exposure Limits:** Lubricant OilACGIH TLV: 5 mg/m³, 8 hr ACGIH STEL: 10 mg/m³ OSHA PEL: 5 mg/m³, 8 hr

Section 3. Hazards Identification

EMERGENCY OVERVIEW: May cause eye, skin and respiratory system irritation.**Primary Routes of Exposure:** Eye. Skin. Inhalation (breathing).**Eye Contact:** Can cause mild irritation. **Skin Contact:** Irritation can occur following prolonged or repeated contact. **Inhalation (breathing):** Processing vapors can possibly cause irritation to the upper respiratory tract. **Ingestion (swallowing):** Ingestion can cause gastrointestinal irritation. **Aggravation of****Existing Conditions:** A review of available data does not identify worsening of any existing medical conditions.

Carcinogenicity:	ACGIH	IARC	NTP	OSHA
Fluorescent Dye	No	No	No	No
Lubricant Oil	No	No	No	No

HMIS HAZARD RATING: Health: 1, Fire: 2, Reactivity: 0.

Section 4. First-Aid Measures

Eye Contact: Flush eyes with water for 15 minutes. If irritation develops, consult a physician. **Skin Contact:** Wash affected area with soap and water. If irritation develops, consult a physician. **Inhalation (breathing):** Remove to fresh air. If symptoms develop, seek immediate medical attention. If not breathing, give artificial respiration. **Ingestion (swallowing):** Call a physician immediately. Induce vomiting only as directed by medical personnel.

Section 5. Fire-Fighting Measures

Flash Point: Greater than >185°F (85°C); **Test Method:** SETAFLASH Closed Cup; **Explosive Limit:** LEL(%): Not Determined; UEL(%): Not Determined; **Autoignition Temperature:** Not Determined. **Unusual Fire and Hazardous Combustion and Decomposition Products:** Smoke, soot, and toxic/irritating fumes (i.e., carbon dioxide, carbon monoxide, etc.). **Fire and Explosion Hazards:** May liberate irritating or toxic vapors during combustion or decomposition. **Extinguishing Media:** Based on the NFPA guide, use dry chemical, carbon dioxide, or alcohol foam suitable for Class B fires. Use water to cool containers exposed to fire. For large fires, use water spray or fog, thoroughly drenching the burning material; **Fire-Fighting Procedures/Equipment:** Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH-approved, positive-pressure, self-contained breathing apparatus (SCBA) and full protective clothing.

Section 6. Accidental Release Measures

Spill Containment and Recovery: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed dye and absorbent into a recovery or salvage drum for disposal. **Disposal:** Either incinerate or land fill in accordance with applicable local, state and federal regulations.

Section 7. Handling and Storage

Storage Conditions: Store in a cool, dry, well-ventilated area away from heat, ignition sources, and direct sunlight. Always keep containers tightly closed. **Personal Hygiene:** Wash thoroughly after handling, especially before eating, drinking, smoking, or using restroom facilities. **Empty Container Precautions:** Do not reuse empty container for any purpose.

Section 8. Exposure Controls/Personal Protection

Engineering Controls/Ventilation: Maintain airborne concentrations below the established exposure limits (see PEL and TLV in section 2) by providing adequate ventilation. General (dilution) ventilation should be acceptable. **Eye Protection:** Wear safety goggles. An eye wash facility should be readily available. **Skin Protection:** Wear protective clothing and appropriate impervious gloves. **Respiratory Protection:** Avoid breathing vapor and/or mist. If occupational exposure limits are exceeded wear NIOSH/OSHA approved equipment. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator. Respiratory protection programs must be in compliance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Appearance: Dark red; **Odor:** Light blend petroleum; **Physical State:** Liquid; **Specific Gravity (Water=1):** 0.85-0.9; **Vapor Pressure 68° F (20° C):** <1 mmHg @ 20° C; **Vapor Density (Air=1):** >1; **Percent Volatile by Volume (%):** 0; **Evaporation Rate (Butyl Acetate=1):** <1; **Solubility in Water:** None; **pH:** Not Applicable; **Boiling Range:** >300° F (150° C).

Note: The physical data presented above are typical values and should not be construed as a specification.

Section 10. Stability and Reactivity

Chemical Stability: Stable under normal conditions of storage and use; **Conditions to Avoid:** High temperatures. **Incompatibility with other Materials:** Oxidizers and reducers; **Hazardous Polymerization:** Will not occur. **Hazardous Decomposition Products:** Combustion may produce carbon monoxide and carbon dioxide.

Section 11. Toxicological Information

		Lubricant Oil	Fluorescent Dye*
Oral LD ₅₀	Rat	> 5000 mg/kg	> 5000 mg/kg
Dermal LD ₅₀	Rabbit	> 2000 mg/kg	> 2000 mg/kg
Inhalation LC ₅₀	Rat	Not available	Not available
Eye Irritation	Rabbit	Slight to mild irritation	Slight to mild irritation
Skin Irritation	Rabbit	Mild irritation	Mild irritation

*Fluorescent Dye: Negative results were obtained in the Ames test. Negative results were obtained in the micronucleus assay.

Section 12. Ecological Information

No data are available on this product.

Section 13. Disposal Considerations

Disposal: Dispose of in accordance with all local, state, and federal regulations. **General Statements:** Federal regulations may apply to empty container. State and/or local regulations may be different. **Special Instructions:** Be sure to contact the appropriate government environmental agencies if further guidance is required.

Section 14. Transport Information

DOT Shipping Name: Not Regulated; **DOT Label:** Not Applicable; **DOT Identification No.:** Not Applicable; Nonregulated shipments by air under 49 CFR, IATA/ICAO AND IMO.

Section 15. Regulatory Information

U.S. Federal Regulatory Information:

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SARA Title III Information:

Ozone-Depleting Chemicals: No regulated ingredients. **Section 302-Extremely Hazardous Substances:** No regulated ingredients. **Section 302-Reportable Quantity:** None. **Section 311/312-Hazard Categories:** Fire Hazard: Yes; Sudden Release of Pressure Hazard: No; Reactivity Hazard: No; Immediate (Acute) Health Hazard: Yes; Delayed (Chronic) Health Hazard: No. **Section 313-Toxic Chemicals:** No regulated ingredients.

TSCA: The chemical components of this product are contained on the Section 8(B) Chemical Substance Inventory List (40 CFR 710).

CERCLA: No regulated ingredients.

State Right-To-Know:

Pennsylvania - New Jersey R-T-K:

NAME	CAS NO. or NJ TSNR
Fluorescent Dye	EIN 80100312-5000P
Lubricant Oil	EIN 80100312-5001P

California - California Proposition 65 - No regulated ingredients.

CONEG: No data available.

Canada: This is a "controlled product" under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Class B Division 3 Class D Division 2 Subdivision B

CEPA - NPRI - No regulated ingredients.

Section 16. Other Information

USER'S RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions (in addition to those described herein) are required. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be.

DISCLAIMER OF LIABILITY: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the users to comply with all applicable federal, state and local laws and regulations.

NA = Not Available

End of Material Safety Data Sheet