



UNISOURCE CHEMICALS PRIVATE LIMITED

Factory : L-15 MIDC TARAPUR, BOISAR - 401506 DIST. THANE

Tel.: 2205 2250; 2205 0713; Fax: ++91-22-22019990 ;

E-mail: unisourceindia@gmail.com; Web: www.ucplchem.com

4',5'-DIBROMOFLUORESCEIN

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION:

Synonyms: C.I. 45370.1, Solvent Red 72, 4',5'-Dibromo-3',6'-dihydroxyspiro[isobenzofuran-1(3H), 9'[9 H] xanthen]-3-one; Acid Orange 11; Fluorescein, 4'5'-dibromo-

CAS No. : 596-03-2.

Molecular Weight : 490.11.

Chemical Formula: C₂₀H₁₀Br₂O₅

2.COMPOSITION/ INFORMATION ON INGREDIENTS:

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Percent</u>	<u>Hazardous</u>
4',5'-Dibromofluorescein	596-03-2	100%	No

3. HAZARDS IDENTIFICATION:

Emergency Overview

Appearance: Orange Powder. **CAUTION!** The toxicological properties of this material have not been fully investigated. May cause eye and skin irritation. May cause digestive and respiratory tract irritation.

Target Organs: None.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

Inhalation: May cause irritation of respiratory tract. The toxicological properties of this material have not been fully investigated.

Chronic: No information found.

4. FIRST AID MEASURES:

Eyes : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician : Treat symptomatically and supportively.

5. FIREFIGHTING MEASURES:

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media : Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not available.

Auto-ignition Temperature: Not available.

Explosion, Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (Estimated) Health: 1; Flammability: 0; Instability: 0

6. ACCIDENTAL RELEASE MEASURE:

General Information: Use proper personal protective equipment as indicated in Section 8.

Spill/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment Section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

7. HANDLING AND STORAGE:

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances..

8. EXPOSURE CONTROLS, PERSONAL PROTECTION:

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

CHEMICAL NAME	ACGIH	NIOSH	OSHA - FINAL PELs
4, '5'- Dibromofluorescein	none listed	none listed	none listed

OSHA Vacated PELs: 4', 5'-Dibromofluorescein: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN149 must be followed whenever workplace conditions warrant a respirator use.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State: Powder
Appearance: Orange Powder
Odor: None reported
pH: Not available

Vapor Pressure:	Not available
Vapor Density:	Not available
Evaporation Rate:	Not available
Viscosity:	Not available
Boiling Point:	760.00mm Hg
Freezing/Melting Point:	270.00-273.00 deg C
Decomposition Temperature:	Not available
Solubility:	Slightly soluble
Specific Gravity/Density:	Not available

10. STABILITY AND REACTIVITY:

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, dust generation, strong oxidants.

Incompatibilities with Other Materials: Oxidizing agents

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, hydrogen bromide.

Hazardous Polymerization: Has not been reported

11. TOXICOLOGICAL INFORMATION:

RTECS#: CAS# 596-03-2: LM5200000

LD50/LC50: Not available

Carcinogenicity: CAS# 596-03-2: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: no information available.

Teratogenicity: No information available.

Reproductive Effects: Maternal effects: ovaries/fallopian tubes by orl-rat TDLo: 10,500 mg/kg (female 21D pre).

Neurotoxicity: No information available.

Mutagenicity: Mutation in microorganisms-Salmonells typhimurium = 100ng/plate

Other Studies: No information available.

12. ECOLOGICAL INFORMATION:

No information available.

13. DISPOSAL CONSIDERATIONS:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. U.S. EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3.

Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. .

RCRA P-Series: None listed.

RCRA U-Series: None listed.

14. TRANSPORT INFORMATION:

No information available.

15. REGULATORY INFORMATION:

US FEDERAL

TSCA

CAS# 596-03-2 is listed on the TSCA Inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Report List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ & TPQ)

None of the chemicals in this material have an RQ or TPQ.

Section 313

No chemicals are reportable under Section 313.

CLEAN AIR ACT:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 & 2 Ozone depleters.

CLEAN WATER ACT:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 596-03-2 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

EUROPEAN/INTERNATIONAL REGULATIONS

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases: Not available.

Safety Phrases: S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 596-03-2: No information available.

Canada - DSL.NDSL

CAS# 596-03-2 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2B.

Canadian Ingredient Disclosure List

Exposure Limits

16. OTHER INFORMATION:

DISCLAIMER:

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