SAFETY DATA SHEET (SDS)

According to OSHA HazCom Standard 29 CFR 1910.1200 (g), Rev 2012 and GHS Rev 03
Revision No. 0, Revision Date: 25-Mar-15
Printing Date: 24-Jun-15

Product: 9.FL.PTSAP0  SPECTRA TRACE SH-P

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

Product identifiers:
Product Form: Substance
Product Name: SPECTRA TRACE SH-P
Product Number: 9.FL.PTSAP0
Color Index Name: FLUORESCENT
C.I. No: None Known.
CAS number: 59572-10-0
Formula: 1,3,6,8-PYRENE TETRA SULF AC S
Synonyms:

Intended Use of the Product
Water treatment and tracing, fluorescent tracing
(maximum absorbance value based on 10mg/L in water)

Name, Address, and Telephone of the Responsible Party
Spectra Colors Corporation
25 Rizzolo Road
Kearny, NJ 07032 USA
Telephone       800-527-8588 (USA), 201-997-0606 (Int’l)
Fax number     201-997-0504
Email                 dyes@spectracolors.com

EMERGENCY TELEPHONE NUMBER
Emergency phone number: Chemtrec 800-424-9300 (USA)
+1 703-527-3887 (Outside USA)

SECTION 2: Hazards Identification

Classification of the substance or mixture

GHS-US Classification
Acute tox. – inhalation 5 H333
Acute tox – oral 5 H303

Label Elements

GHS Labelling:
Hazard Pictograms (GHS-US): No Symbol

Signal Word (GHS-US): Warning

Hazard Statements (GHS-US)
H333 - May be harmful if inhaled
H303 – May be harmful if swallowed

Precautionary Statements (GHS-US)
P304 + P312 – IF INHALED or SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Other Hazards: No data available
Unknown acute toxicity (GHS US): No data available
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SECTION 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier CAS No.</th>
<th>Weight%</th>
<th>GHS-US Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLUORESCENT</td>
<td>59572-10-0</td>
<td>100</td>
<td>Acute tox. – inhalation 5 H333</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute tox – oral 5 H303</td>
</tr>
</tbody>
</table>

Hazardous ingredients:
No hazardous components found under applicable regulations.

SECTION 4: First Aid Measures

Description of first aid measures
First Aid Measures General: Remove contaminated clothing
First-aid measures after inhalation: Remove to fresh air. If breathing is difficult, give oxygen and get immediate medical attention.
First-aid measures after skin contact: Wash affected area thoroughly with soap and water. If any irritation develops, consult a Physician.
First-aid measures after eye contact: Flush with plenty of cool water for at least 15 minutes, holding eyelids apart for thorough irrigation. Get immediate medical attention.
First-aid measures after ingestion: Induce vomiting – seek immediate medical attention.

Most important symptoms and effects, both acute and delayed:
THIS PRODUCT IS NOT HAZARDOUS AS DEFINED BY HAZARDOUS COMMUNICATION STANDARD. HOWEVER, AS WITH ALL CHEMICAL; HANDLE WITH CARE AVOID EYE & SKIN CONTACT, AVOID INHALATION OF DUSTS OR VAPORS. WASH THOROUGHLY AFTER HANDLING. KEEP CONTAINERS CLOSED.

Indication of any immediate medical attention and special treatment needed:
No additional information

SECTION 5: Firefighting Measures

Extinguishing media
Suitable Extinguishing Media: WATER, DRY CHEMICAL,CARBON DIOXIDE,FOAM
Unsuitable Extinguishing Media:
Special hazards arising from the substance or mixture: NONE EXPECTED. FIREFIGHTERS SHOULD BE EQUIPPED WITH SELF- CONTAINED BREATHING APPARATUS TO GUARD AGAINST POTENTIALLY TOXIC AND IRRITATING FUMES. AVOID DUSTING. DUST CAN FORM EXPLOSIVE MIXTURES WITH AIR.

Fire Hazard: N/A
Explosion Hazard: N/A
Reactivity: N/A

Advice for firefighters
Firefighting Instructions: WEAR SELF-CONTAINED BREATHING APPARATUS.
Protection during firefighting: Wear fully protective suit.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
General Measures: Remove persons from danger area.
For non-emergency personnel
Protective equipment:
Emergency procedures: No additional information
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**SECTION 7: Handling and storage**

**Precautions for safe handling**
Additional hazards when processed: N/A
Precautions for safe handling: Handle with CARE. AVOID over exposure. Use NIOSH/OSHA APPROVED RESPIRATOR, WORK GLOVES and CLOTHING. WASH after handling. SENSITIVE INDIVIDUALS MAY EXPERIENCE RESPIRATORY ALLERGIES. MAY CAUSE SKIN IRRITATION. USE WITH LOCAL VENTILATION.
Hygiene measures: N/A

Conditions for safe storage, including any incompatibilities
Technical measures: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.
Storage conditions: EYES: Flush with large amounts of water. SKIN: Shower with soap and water. INHALATION: Remove to fresh air. ALWAYS GET MEDICAL ATTENTION IF IRRITATION DEVELOPS. INGESTION: Get immediate medical attention.
Incompatible products: Keep away from heat. Keep away from sources of ignition.
Incompatible materials:
Storage area: Keep away from strong oxidizing and reducing agents
Special rules on packaging: None

Specific end use(s): Water treatment and tracing, fluorescent tracing
(maximum absorbance value based on 10mg/L in water)

**SECTION 8: Exposure controls / personal protection**

Control parameters
Ingredients with limit values that require monitoring at the workplace: Not required.

Exposure controls
Appropriate engineering controls:
The usual precautionary measures are to be adhered to when handling chemicals.

Personal protective equipment:

Hand protection: Wear protective gloves
Eye protection: Tightly sealed safety goggles or full face shield
Skin and body protection: Wear suitable protective clothing
Respiratory protection: Dust Mask
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Thermal hazard protection:
Other information: No additional information

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>YELLOW POWDER / NO ODOR</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data</td>
</tr>
<tr>
<td>pH</td>
<td>9.5 +/- 1.5 (1% water solution</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>ND</td>
</tr>
<tr>
<td>Initial boiling point/boiling range</td>
<td>0.00</td>
</tr>
<tr>
<td>Flashpoint</td>
<td>NORMALLY STABLE, NOT COMBUSTIBLE NOR FLAMMABLE.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>NORMALLY STABLE, NOT COMBUSTIBLE NOR FLAMMABLE.</td>
</tr>
<tr>
<td>Upper explosive limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Lower explosive limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor density</td>
<td>N/A</td>
</tr>
<tr>
<td>Relative density</td>
<td>1</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Yes / Hygroscopic</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water</td>
<td>No data</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data</td>
</tr>
<tr>
<td>Viscosity, cinematic</td>
<td>No data</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>N/A</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Other information
No additional information available

SECTION 10: Stability and reactivity

Reactivity: No data
Chemical stability: Stable
Possibility of hazardous reactions
No additional information available
Conditions to avoid: OXIDIZING & REDUCING AGENTS MAY DESTROY COLOR.
Incompatible materials: OXIDIZING & REDUCING AGENTS MAY DESTROY COLOR.
Hazardous decomposition products: CO, CO2, OXIDES OF NITROGEN AND OTHER POTENTIALLY TOXIC FUMES.

SECTION 11: Toxicological information

Information on toxicological effects
Oral (Animal): LD50; Greater than 10,000 mg/kg toxic to Rat
Dermal (animal): NO DATA AVAILABLE.
Effects to eyes (Animal): NO DATA AVAILABLE.
Skin irritation (Animal): Slight irritant (Rabbit)

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Causes eye irritation.
SECTION 12: Ecological information

Toxicity:
NO DATA AVAILABLE.

Persistence and degradability:
The ultimate decomposition product of this material is CO2, CO & oxides of sulfur. The degradation study at various time interval is not available. However, we can conclude as follows: The referred product is sodium salt and hence is very stable under normal conditions of temp. The product does not decompose over the years, so for 12 months it does not decompose. Under extreme conditions of very high temperatures, it would decompose initially to pyrene and sulfuric acid and thereafter to CO2, CO and sulfur oxides.

Bioaccumulative potential: No Data Available
Mobility in soil: Considered non-toxic

Other adverse effects: No additional information available

SECTION 13: Disposal considerations

Waste treatment methods
Regional legislation (waste): Dispose of only in an approved land-fill area or by controlled incineration in accordance with local and State regulations.

Waste disposal recommendations: Empty bags thoroughly. Carry out the proper recycling, re-usage or disposal. Please refer to the relevant EU regulations, in particular the guidelines/ decisions of the council regarding handling of wastes (e.g. 75/442/EEC, 91/689/EEC, 94/67/EC, 94/904/EC) as implemented in national regulations.

SECTION 14: Transport information

UN number: None

UN proper shipping name: None
Department of Transportation (DOT)
Transport hazard class(es): N/A

Hazard labels (DOT)
Packing group (DOT): N/A
DOT Special provisions: N/A

Additional information
Overland transport: NONE
Transport by sea: NONE
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Air transport: NONE
DOT Quantity Limitations Passenger Aircraft: No additional information
DOT Quantity Limitations Cargo Aircraft: No additional information

SECTION 15: Regulatory information

US Federal regulations
This substance is listed on United States TSCA (Toxic Substance Control Act) inventory.

US State regulations
None

Other regulations

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>CHINA</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
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<tbody>
<tr>
<td>59572-10-0</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

TSCA Status: LISTED
E C Classification: (67/548/EEC – 88/379/EEC) n/a
EINECS Number: REACH Classification:
R-phrases:
Additional Regulatory Information:
15% SUM OF VOLATILE MATTER AT 135C & CHLORIDES AND SULPHATES (AS SODIUM SALT)
1,3,6,8-Pyrenetetrasulfonic acid tetrasodium salt C16H6O12S4Na4
This material is hygroscopic, in nature. Keep in tightly sealed containers, avoiding highly humid ambient conditions.
NMFC CLASS 180, SUBCLASS 30
LISTED ON AICS (AUSTRALIA)
Kosher Cert. available upon request
California Prop. 65 status: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Indication of changes: N/A
Other information: N/A

GHS Full Text Phrases:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H333</td>
<td>May be harmful if inhaled</td>
</tr>
<tr>
<td>H303</td>
<td>May be harmful if swallowed</td>
</tr>
</tbody>
</table>

NFPA Rating: N/A
HMIS Rating: Health: 1  Flammability: 0  Reactivity: 0  Personal Protection: D

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