

Safety Data Sheet

ORANGE G SOLUTION

(Orange G 0.5% - Phosphotungstic Acid 2% Aqueous Solution)

Section 1 - Chemical Product and Company Identification

SDS Name: Orange G Solution (Orange G 0.5%- Phosphotungstic Acid 2% Aqueous Solution)

Catalog Numbers: SO-912, F-401-3

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H315-Skin corrosion/irritation: 2

H319-Serious eye damage/eye irritation: 2A

0.5% of the mixture consists of ingredients of unknown acute oral toxicity.

2.5% of the mixture consists of ingredients of unknown acute dermal and inhalation toxicity.

Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Warning

Hazard Statements:

H315-Causes skin irritation

H319-Causes serious eye irritation

Precautionary Statements:

P264-Wash thoroughly after handling.

P280-Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352-If on skin: Wash with plenty of soap and water.

P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313-If skin irritation occurs: Get medical advice/attention.

P337+P313-If eye irritation persists: Get medical advice/attention.

P362-Take off contaminated clothing and wash before reuse.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
1936-15-8	Orange G	0.5 w/v
12501-23-4	Phosphotungstic Acid Hydrate	2 w/v
7732-18-5	Water	Balance

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek immediate medical attention.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical attention.

Oral Exposure: If swallowed, seek immediate medical advice. Do NOT induce vomiting. Rinse mouth with water.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting 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 gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

Hazardous Combustion Products: Carbon oxides, nitrogen oxides, sulfur oxides, sodium oxides, phosphorus oxides, phosphorus trihydride (phosphine), irritating and toxic fumes and gases.

Flash Point: Not available

Autoignition Temperature: Not available

Explosion Limits, Lower: Not available

Upper: Not available

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

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Store in a tightly closed container in a cool, dry, and well-ventilated area. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

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 EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Orange G CAS#1936-15-8	Not listed	Not listed	Not listed
Phosphotungstic Acid Hydrate	3 mg/m ³ TWA	5 mg/m ³ TWA 10 mg/m ³ STEL	5 mg/m ³ TWA (vacated) 10 mg/m ³ STEL

CAS#12501-23-4			(vacated)
----------------	--	--	-----------

OSHA Vacated PELs: Phosphotungstic Acid Hydrate: 5 mg/m³ TWA; 10 mg/m³ STEL

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: Dark Orange
Odor: Odorless
Vapor Pressure: Not available
Odor Threshold: Not available
Vapor Density: Not available
pH: Approx. 1.8
Relative Density: Not available
Melting point/freezing point: Not available
Solubility: Soluble in water
Boiling Point: Not available
Flash Point: Not available
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Partition coefficient: n-octanol/water: Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available
Specific Gravity/Density: Not available

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, excess heat, hot surfaces, ignition sources, and freezing.
Incompatibilities with Other Materials: Strong oxidizing agents and strong bases.
Hazardous Decomposition Products: Carbon oxides, nitrogen oxides, sulfur oxides, sodium oxides, phosphorus oxides, phosphorus trihydride (phosphine), irritating and toxic fumes and gases.

Section 11 - Toxicological Information

CAS#1936-15-8 Orange G: RTECS#: QJ6500000

LD50 Oral: Not available
 LD50 Dermal: Not available
 LC50 Inhalation: Not available

Carcinogenicity: Orange G CAS#1936-15-8 is not listed by NTP, ACGIH, OSHA, or California Prop 65. Orange G is listed by IARC (Group 3, Not classifiable as to its carcinogenicity to humans).

CAS#12501-23-4 Phosphotungstic Acid Hydrate:

LD50 Oral: 300-2000 mg/kg (rat)

LD50 Dermal: Not available

LC50 Inhalation: Not available

Carcinogenicity: Phosphotungstic Acid Hydrate CAS#12501-23-4 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

Epidemiology: Not available.**Teratogenicity:** Not available.**Reproductive Effects:** Pig oral – testes, epididymis, sperm duct.**Developmental Effects:** Not available.**Neurotoxicity:** Not available.**Mutagenicity:** Mutagenic effects have occurred in experimental animals. Cytogenetic analysis, hamster ovary.**Specific Target Organ Toxicity, Single Exposure:** Not available.**Specific Target Organ Toxicity, Repeated Exposure:** Not available.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains.**CAS#12501-23-4 Phosphotungstic Acid Hydrate:**

EC50, water flea: 70.8 mg/L 48h (daphnia magna)

ErC50, algae: 7.8 mg/L 72h (pseudokirchneriella subcapitata)(green algae)

EC50, bacteria: >1000 mg/L 3h (activated sludge)

Persistence and degradability: Not available.**Bio-accumulative potential:** Not available.**Mobility:** Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT

Proper shipping name: Corrosive liquid, Acidic, Inorganic, N.O.S (Phosphotungstic Acid Solution)

UN 3264

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 8-12-22

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Rowley Biochemical, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rowley Biochemical, Inc. has been advised of the possibility of such damages.