



SAFETY DATA SHEET

Hot Tub Serum® Total Maintenance

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Union REACH Regulations

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **Hot Tub Serum® Total Maintenance**
 SYNONYMS: None known
 CAS NUMBER: Mixture
 EPA REGISTRATION NUMBER: 84409-2
 PRODUCT DESCRIPTION: Hot Tub Serum Total Maintenance is an effective biocide, clarifier and water softener that is added to Hot Tub/Spa water on a weekly basis. Hot Tub Serum will keep your water and plumbing infrastructure free of particulates and bio-accumulation that can greatly affect your water quality. Hot Tub Serum is NOT a sanitizer and MUST be used in conjunction with an EPA approved sanitizer. Hot Tub Serum will keep your water extremely clear while keeping your plumbing & jets "whistle clean". Add Hot Tub Serum weekly for best results.

U.N. NUMBER: NA
 U.N. DANGEROUS GOODS CLASS: Non-Regulated Material
 MANUFACTURER'S NAME: Unique Solutions, Inc.
 ADDRESS: 1319 River Club Drive, Vero Beach, Florida 32963-3966 USA
 EMERGENCY PHONE: 860-798-3198
 BUSINESS NUMBER: 860-896-0836
 EMAIL ADDRESS: east@hottubserum.net
 WEB SITE: www.SerumWatercare.com
 DATE OF PREPARATION: March 14, 2017
 DATE OF LAST REVISION: July 31, 2019

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Product Description: This product is a violet liquid with a slight organic odor.
Health Hazards: This product contains ingredients that may cause skin, eye and/or respiratory irritation. Direct eye contact may cause burning and irritation. Ingestion may cause gastrointestinal irritation. Exposure to mist/vapor may cause respiratory irritation.
Flammability Hazards: This product is a non-flammable liquid.
Environmental Hazards: The Environmental effects of this product have not been investigated.
Emergency Recommendations: Emergency responders must have personal protective equipment and fire protection appropriate for the situation to which they are responding.

US DOT SYMBOLS

Non-Regulated Material

CANADA (WHMIS) SYMBOLS

Complies with WHMIS 2015

GHS Hazard Symbols



Signal Word: Danger!

CLASSIFICATION OF SUBSTANCE OR MIXTURE IN ACCORDANCE WITH 29 CFR 1910.1200 (OSHA HCS) AND THE EUROPEAN UNION DIRECTIVES:

This product has been classified as defined by 29 CFR 1910.1200 (USA) and the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:

EC# 231-791-2 This substance is not classified in the Annex VI of Directive 67/548/EEC

EC# 269-919-4 This substance is not indexed in the Annex VI of Directive 67/548/EEC

Trade Secret Ingredient - This substance is not classified in the Annex VI of Directive 67/548/EEC

Colorant is not listed in ESIS



SAFETY DATA SHEET

Hot Tub Serum® Total Maintenance

COMPONENT(S) CONTRIBUTING TO CLASSIFICATION(S)

All Ingredients

LABEL ELEMENTS:

GHS HAZARD CLASSIFICATION(S):

- Acute Oral Toxicity Category 4
- Skin Irritant Category 2
- Eye Irritant Category 2
- STOT SE Category 3

HAZARD STATEMENT(S):

- H302: Harmful if swallowed
- H315: Causes skin irritation
- H319: Cause serious eye irritation
- H335: May cause respiratory irritation

PRECAUTIONARY STATEMENT(S):

- P264: Wash hands thoroughly after handling
- P270: Do not eat, drink or smoke when using this product

RESPONSE STATEMENT(S):

- P301+P312: IF SWALLOWED: Call a Poison Center/Doctor
- P302+P352: IF ON SKIN: Wash with plenty of water.
- P332+P313: If skin irritation occurs: Get medical advice/attention.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313: If eye irritation persists: Get medical advice/attention.

STORAGE STATEMENTS(S):

- P404: Store in a closed container

DISPOSAL STATEMENT(S):

- P501: Dispose of contents/container in accordance with local/national/international regulations

HEALTH HAZARDS OR RISKS FROM EXPOSURE:

ACUTE: This product contains ingredients that may cause skin, eye and/or respiratory irritation. Direct eye contact may cause burning and irritation. Ingestion may cause gastrointestinal irritation. Exposure to mist/vapor may cause respiratory irritation.

CHRONIC: None Known

TARGET ORGANS: ACUTE: Eye, Skin, Respiratory System CHRONIC: None Known

SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS:	CAS #	EINECS #	ICSC #	WT %	GHS HAZARD CLASSIFICATION(S);
Water	7732-18-5	231-791-2	Not Listed	65 – 75%	Not Classified
Alkyl Dimethyl Benzyl Ammonium Chloride (C12-18)	68391-01-5	269-919-4	Not Listed	5 - 10%	H302: Acute Oral Toxicity Cat 4, H315: Skin Irritation Cat 2, H319: Eye Irritation Cat 2
Trade Secret	Proprietary	Proprietary	Not Listed	5 - 15%	H315: Skin Irritation Cat 2, H319: Eye Irritation Cat 2, STOT SE Cat 3
Colorant (Violet)	Non-Hazardous	Not Listed	Not Listed	<0.1%	Not Classified
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).					

NOTE: ALL WHMIS required information is included in appropriate sections. This product has been classified in accordance with the hazard criteria of OSHA 29CFR1910.1200 and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250: 2000.

SECTION 4 - FIRST-AID MEASURES

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Pesticide Information Center at 800-858-7378 for general or medical information.

SAFETY DATA SHEET

Hot Tub Serum® Total Maintenance

EYE CONTACT: If product enters the eyes, hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

SKIN CONTACT: Remove contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a poison control center or doctor for treatment advice. Launder clothing before re-use.

INHALATION: If breathing becomes difficult, remove person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth, if possible. Call a poison control center or doctor for further treatment advice.

INGESTION: If product is swallowed, call physician or poison control center immediately for the most current treatment information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin, or respiratory problems may be aggravated by prolonged exposure to this product.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and reduce over-exposure.

SECTION 5 - FIRE-FIGHTING MEASURES

FLASH POINT:

Non-Flammable Liquid

AUTOIGNITION TEMPERATURE:

Not Applicable

FLAMMABLE LIMITS (in air by volume, %):

Lower (LEL): NA Upper (UEL): NA

FIRE EXTINGUISHING MATERIALS:

Dry chemical, foam, carbon dioxide or water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Water based solution that is not expected to be a fire or explosion hazard. Irritating and toxic gases or fumes may be released during a fire.

Explosion Sensitivity to Mechanical Impact:

No

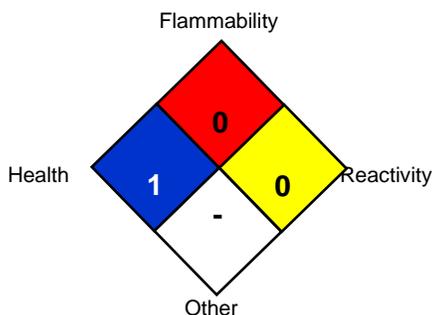
Explosion Sensitivity to Static Discharge:

No

SPECIAL FIRE-FIGHTING PROCEDURES:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)			1
FLAMMABILITY HAZARD (RED)			0
PHYSICAL HAZARD (YELLOW)			0
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard



SAFETY DATA SHEET

Hot Tub Serum® Total Maintenance

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Personnel should be trained for spill response operations.
SPILLS: Contain spill if safe to do so. Prevent entry into drains, sewers, and other waterways. Soak up with an absorbent material and place in an appropriate container for disposal. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

SECTION 7 - HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: Wash thoroughly after handling this product.
STORAGE AND HANDLING PRACTICES: Product should be stored in original containers under normal conditions

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/GUIDELINES:

Chemical Name	CAS#	ACGIH TWA	OSHA TWA
Water	7732-18-5	Not Listed	Not Listed
Alkyl Dimethyl Benzyl Ammonium Chloride (C12-18)	68391-01-5	Not Listed	Not Listed
Trade Secret	Proprietary	Not Listed	Not Listed
Colorant (Violet)	Non-Hazardous	Not Listed	Not Listed

Currently, International exposure limits are not established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Use local exhaust ventilation to control airborne mist/vapor/dust. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Splash goggles or safety glasses with side shields recommended where splashing is possible. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

HAND PROTECTION: Compatible chemical protective gloves recommended as appropriate for task. Wash hands after removing gloves. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protection appropriate to prevent contact (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
APPEARANCE & ODOR:	Violet liquid with a slight organic odor.
ODOR THRESHOLD (PPM):	Not Available
VAPOR PRESSURE (mmHg):	Not Available
VAPOR DENSITY (AIR=1):	Not Available
EVAPORATION RATE (nBuAc = 1):	Not Available
BOILING POINT (C°):	212°F
FREEZING POINT (C°):	Not Available



SAFETY DATA SHEET

Hot Tub Serum® Total Maintenance

pH: 8.0 – 8.9
 SPECIFIC GRAVITY 20°C: (WATER =1) Not Available
 SOLUBILITY IN WATER (%) Complete
 VOC: Nil

SECTION 10 - STABILITY and REACTIVITY

STABILITY: Product is stable
DECOMPOSITION PRODUCTS: When heated to decomposition this product produces Oxides of carbon (COx) and hydrogen chloride fumes.
MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong oxidizing agents, soap, or other anionic materials.
HAZARDOUS POLYMERIZATION: Will not occur.
CONDITIONS TO AVOID: Contact with incompatible materials, extreme temperatures and freezing conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICITY DATA:

Chemical Name	CAS#	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5	No Data Available	No Data Available	No Data Available
Alkyl Dimethyl Benzyl Ammonium Chloride (C12-18)	68391-01-5	426 mg/kg	930 mg/kg	No Data Available
Trade Secret	Proprietary	No Data Available	No Data Available	No Data Available
Colorant (Violet)	Non-Hazardous	No Data Available	No Data Available	No Data Available

Acute Oral Toxicity	Acute Oral Toxicity Category 4
Skin Corrosion / Irritation	Skin Irritant Category 2
Serious Eye Damage / Irritation	Eye Irritant Category 2
Respiratory or Skin Sensitization	Based on available data, the classification criteria are not met
Germ Cell Mutagenicity	Based on available data, the classification criteria are not met
Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive Toxicity	Based on available data, the classification criteria are not met
STOT – Single Exposure	STOT SE Category 3
STOT – Repeated Exposure	Based on available data, the classification criteria are not met
Aspiration Hazard	Based on available data, the classification criteria are not met

SUSPECTED CANCER AGENT: None of the ingredients are found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore is not considered to be, nor suspected to be a cancer-causing agent by these agencies.

IRRITANCY OF PRODUCT: Contact with this product may be irritating to exposed skin and/or eyes.

SENSITIZATION OF PRODUCT: This product is not considered a sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: No data available

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE: Possible skin irritation with prolonged exposure.

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE: None known

ASPIRATION HAZARD: None

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

TOXICITY:

No data available

PERSISTENCE AND DEGRADABILITY:

No specific data available on this product.

BIOACCUMULATIVE POTENTIAL:

No data available.

MOBILITY IN SOIL:

No data available.



SAFETY DATA SHEET

Hot Tub Serum® Total Maintenance

RESULTS OF PBT ANDvPvB ASSESSMENT:

No specific data available on this product.

OTHER ADVERSE EFFECTS:

None known

WATER ENDANGERMENT CLASS:

Water endangering in accordance with EU Guideline 91/155-EWG. Not determined

SECTION 13 - DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

SECTION 14 - TRANSPORTATION INFORMATION

US DOT; IATA; IMO; ADR:

THIS PRODUCT IS NOT HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Non-Regulated Material

HAZARD CLASS NUMBER and DESCRIPTION: None

UN IDENTIFICATION NUMBER: None

PACKING GROUP: None

DOT LABEL(S) REQUIRED: None

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2004): NA

MARINE POLLUTANT: None of the ingredients are classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

This product is not classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):

This product is not classified as Dangerous Goods, by rules of IATA:

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION:

This product is not classified as Dangerous Goods by the International Maritime Organization.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR):

This product is not classified by the United Nations Economic Commission for Europe to be dangerous goods.

SECTION 15 - REGULATORY INFORMATION

UNITED STATES REGULATIONS:

SARA REPORTING REQUIREMENTS: This product is subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act., as follows: None

TSCA: All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

SARA 311/312:

Acute Health: Yes Chronic Health: No Fire: No Reactivity: No

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product does not contain ingredient(s) are on the California Proposition 65 lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: All of the components of this product are on the DSL Inventory

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Complies with WHMIS 2015

EUROPEAN ECONOMIC COMMUNITY INFORMATION:**EU LABELING AND CLASSIFICATION:**

Classification of the mixture according to Regulation (EC) No1272/2008. See section 2 for details.



SAFETY DATA SHEET

Hot Tub Serum® Total Maintenance

AUSTRALIAN INFORMATION FOR PRODUCT:

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) STATUS: All components of this product are listed on the AICS.

STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS: Not applicable.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

SECTION 16 - OTHER INFORMATION

PREPARED BY: Paul Eigbrett

GHS MSDS Compliance PLUS

Disclaimer: To the best of Unique Solutions, Inc knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness is not guaranteed and no warranties of any type either express or implied are provided. The information contained herein relates only to this specific product.

END OF SDS SHEET