

MATERIAL SAFETY DATA SHEET

SECTION I PRODUCT / COMPANY IDENTIFICATION

1.1	Product trade name:	SilvrSTAT
1.2	Item number(s):	32-SilvrSTAT 1 oz & 3 oz
1.3	Manufacturer:	Oratech
1.4	Address:	10075 South Jordan Gateway Salt Lake City, Utah 84095
1.5	Emergency number:	(801) 763-8000
1.6	Information number:	(801) 763-8000
1.7	Date revised:	25 June 2013

SECTION II HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Silver hydrosol in water based gel.

Hazardous components:		CAS No.	Symbol
Inactive ingredient – Triethanolamine	0.925%	102-71-6	$N(CH_2CH_2OH)_3$
Active ingredient – Silver	0.0032%	7440-22-4	Ag

Other components:

Active ingredient – Propylene Glycol	6.4740%	57-55-6	$CH_2OHCHOHCH_3$
Inactive ingredient – Carbopol ETD 2020	0.5370%	Proprietary	
Inactive ingredient – Purified Water	92.0608%	7789-20-0	H ₂ O

SECTION III HAZARDS IDENTIFICATION

Product, as shipped, is not irritating to skin, lungs, eyes or mucous membranes. Exposure to, or ingestion of, moderate amounts of this product are not typically harmful. However, chronic long term ingestion of silver or silver salts may cause argyria, a medically benign blue-gray discoloration of the skin, eyes and mucous membranes. In addition, nephrotoxicity has been demonstrated with excessive exposure to silver. Argyria and nephrotoxicity are extremely unlikely to occur with this product due its low concentration of contained silver.

SECTION IV FIRST AID MEASURES

Skin:	None required
Ingestion:	None required
Inhalation:	None required
Eyes:	None required



SECTION V**FIRE-FIGHTING MEASURES**

Product as shipped is non-flammable.

Suitable extinguishing media: Water Contact Acceptable
Forbidden extinguishing media: None
Special firefighting measures: None
Unusual fire and explosion hazards: None
Special protection equipment: None

SECTION VI**ACCIDENTAL RELEASE MEASURES**

Personal precautions: None required

Environmental precautions: No special procedures are required for cleanup of spills or leak of this material. Avoid methods that may result in water pollution. The reportable quantity for silver metal is 1,000 pounds*. Any spill or other release of this amount of material to the air, water or land (unless entirely contained in the workplace) equal to or in excess of the reportable quantity must be reported immediately to the National Response Center (800/424-8802) as required by US Federal Law.

*No reporting of release of this substance is required if the diameter of the pieces of solid metal released is equal to or exceeds 100 micrometers (0.004 inches).

Reclaiming methods: Collect using mechanical means and solid absorbents.

SECTION VII**HANDLING AND STORAGE**

Handling: Not applicable
Storage: Store at ordinary room temperature
Containers: Not Applicable
Incompatibilities: Not Applicable
Other precautions: None

SECTION VIII**EXPOSURE CONTROLS / PERSONAL PROTECTION**

General measures: Not required
Limits: Workplace limits for silver in air are 0.1 mg/m³ TLV (ACGIH 1987-88), 0.01 mg/m³ PEL (OSHA-Dust & Fume)
Respiratory protection: Not required
Eye protection: Not required
Skin protection: Not required
Hands protection: Not required
Other equipment: Not required



SECTION IX PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear gel
Odor:	None
Boiling point:	100 degrees Celsius
Flash point:	None
Explosion limits:	None
Water solubility:	Miscible
Evaporation rate:	As for water
Median silver particle size:	< 0.01 micrometer

SECTION X STABILITY AND REACTIVITY

Stability:	Generally stable
Conditions to avoid:	High temperatures
Materials to avoid:	Not applicable
Hazardous decomposition products:	None
Hazardous polymerization products:	None

SECTION XI TOXICOLOGICAL INFORMATION

Ingestion:	Not applicable
Eye contact:	Not applicable
Skin contact:	Not applicable
Inhalation:	Not applicable
Prolonged exposure:	Not applicable

SECTION XII ECOLOGICAL INFORMATION

This product may be toxic to fish or other aquatic wildlife.

SECTION XIII DISPOSAL CONSIDERATIONS

Use of the product in accordance with label directions until entirely consumed, is considered the preferred disposal method.

Elemental silver, when discarded or disposed of, is not specifically listed as a hazardous waste in federal regulations. However, if the Toxicity Characteristic Leach Procedure (TCLP) extract from a waste exceeds the maximum concentration of silver for the toxicity characteristic, then that waste has the EPA Hazardous Waste Number D011. (See 40 CFR 261.) The transportation, storage, treatment and disposal of hazardous waste material must be conducted in compliance with all applicable federal, state and local requirements.

SECTION XIV TRANSPORT INFORMATION

Ordinary conditions are acceptable.



SECTION XV**REGULATORY INFORMATION**

Silver, Total, is listed as a toxic pollutant (in water) pursuant to 40 CFR 122.21, Appendix D, Table II. Notification levels are describe in 40 CFR 122.42 (a) (1) and 122.42 (a) (2). Due to the low solubility of silver and its low silver content, this product is unlikely to exceed notification levels. There may be specific regulations at the local, regional or state level that pertain to this material.

SECTION XVI**OTHER INFORMATION**

None

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice a patented invention without a license. In addition, no responsibility can be assumed by the manufacturer or vendor for any damage or injury resulting from abnormal use, from any failure to adhere to any recommended practices, from any hazards inherent in the nature of the product, or from any additions or changes in form or substance to the product as distributed by the manufacturer or vendor.

