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

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**Identification of the substance or mixture**

**Product name** NanoSpark STEM-T Soluble T Cell Activator

**Company Identification**

Nanotein Technologies  
2950 San Pablo Ave  
Berkeley CA 94702  
United States  
Toll Free: +1 (866)-828-2355

**FOR RESEARCH USE ONLY. Not for use in diagnostic procedures.**

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SECTION 2: Hazards Identification

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**GHS Classification**

**Signal Word**

None

**Hazard Pictograms**

None

**Health Hazards**

Not Hazardous

**Physical Hazards**

Not Hazardous

**Environmental Hazards**

Not Hazardous

**Hazard Statements**

Not Applicable

**Precautionary Statements**

**Prevention**

Not Applicable

**Response**

Not Applicable

**Storage**

Not Applicable

**Disposal**

Not Applicable

**Other Hazards**

Not Applicable

**HMIS**

Health	0
Flammability	0
Reactivity	0

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**SECTION 3: Composition/Information on ingredients**

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This product contains no substances that are considered hazardous to health at the given concentration. However, it is recommended to handle all lab chemicals with caution.

Component	CAS-No	Weight %
Water	7732-18-5	> 90 %
Glycerol	56-81-5	< 10 %
Sodium Chloride	7647-14-5	< 1 %
Sodium Phosphate Dibasic	7558-79-4	< 1 %
Dihydrogen Potassium Phosphate	7778-77-0	< 1 %
Potassium Chloride	7447-40-7	< 1 %

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**Section 4: First-aid Measures**

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**Description of first-aid measures**

**Ingestion** Rinse mouth with water. Then, drink plenty of water. If symptoms occur contact a physician.

**Inhalation** Breathe fresh air. If symptoms occur seek medical attention.

**Eye Contact** Rinse eyes immediately with water. Remove contact lenses. Rinse for 15 minutes. If symptoms occur contact a physician.

**Skin Contact** Wash immediately with plenty of water for a minimum of 15 minutes. Seek medical attention if symptoms occur.

**Most Important Symptoms and effects** None

**Notes to Physicians** Treat symptomatically

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**Section 5: Fire-fighting measures**

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**Unsuitable Extinguishing Media** No information available

**Flash Point Method** No information available  
No information available

**Autoignition Temperature** No information available

**Explosion Limits Upper** No data available

**Lower Sensitivity to Mechanical Impact Sensitivity to Static Discharge** No data available  
 No information available  
 No information available

**Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors.

**Hazardous Combustion Products**

Oxides of phosphorus. Hydrogen chloride gas.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand. MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

<b>Health</b>	<b>Flammability</b>	<b>Instability</b>	<b>Physical Hazards</b>
1	0	0	N/A

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**Section 6: Accidental release measures**

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**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation  
 Always wear recommended Personal Protective Equipment  
 Use personal protection equipment  
 See Section 8 for more information

**Environmental precautions**

No special environmental precautions required

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material

**Reference to other sections**

See Section 8 for more information

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**Section 7: Handling and Storage**

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**Precautions for safe handling**

Use Personal Protective Equipment as required. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

**Conditions for safe storage, including incompatibilities**

Keep in a cool, dry and well-ventilated place. Keep in properly labeled containers.

**Specific end use(s)**

FOR RESEARCH USE ONLY. Not for use in diagnostic procedures.

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**Section 8: Exposure Controls and Personal Protection**

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**Control Parameters**

<b>Exposure Limits</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.
<b>Engineering Measures</b>	None under normal use conditions

**Personal Protection Equipment****Eye/Face Protection**

Wear appropriate protection 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 and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection**

No protective equipment is needed under normal use conditions.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

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**Section 9: Physical and Chemical Properties**

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<b>Physical State</b>	Liquid
<b>Appearance</b>	Clear Colorless
<b>Odor</b>	No information available
<b>Odor Threshold</b>	No information available
<b>pH</b>	6.4
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	No information available
<b>Flash Point</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	Not applicable
<b>Flammability or explosive limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	No data available
<b>Solubility</b>	No data available
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available

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**Section 10: Stability and Reactivity**

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<b>Reactive Hazard</b>	None known, based on available information.
<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	No information available.
<b>Possibility of hazardous reactions</b>	Hazardous reactions have not been reported.
<b>Incompatible materials</b>	No dangerous reaction known under normal usage conditions.
<b>Hazardous decomposition products</b>	No data available.

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## Section 11. Toxicology Information

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### Product Information

**Oral LD50** Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg  
**Dermal LD50** Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg  
**Vapor LC50** Based on ATE data, the classification criteria are not met. ATE > 20 mg/l

### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
Sodium Chloride	LD50 = 3 g/kg (Rat)	LD50 > 10 g/kg (Rabbit)	LC50 > 42 g/m <sup>3</sup> (Rat) 1 hr
Sodium phosphate dibasic	LD50 = 17 g/kg (Rat)	Not listed	Not listed
Dihydrogen potassium phosphate	LD50 = 3200 mg/kg (Rat)	LD50 > 4640 mg/kg (Rabbit)	Not listed
Potassium chloride	LD50 = 2600 mg/kg (Rat)	Not listed	Not listed
Glycerol	LD50 = 27,200 mg/kg (Rat)	LD50 > 10,000 mg/kg (Rabbit)	Not listed

**Toxicology Synergistic Products** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** No information available

**Acute Toxicity** No information available

**Skin corrosion/irritation** No information available

**Serious eye damage/irritation** No information available

**Respiratory or skin Sensitization** No information available

**Specific target organ toxicity (STOT) – single exposure** None known

**Specific target organ toxicity (STOT) – repeated exposure** None known

**Germ cell mutagenicity** No information available

**Reproductive toxicity** No information available

**Aspiration hazard** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated

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## Section 12: Ecological Information

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### Ecotoxicity

Component	Freshwater algae	Freshwater Fish	Microtox	Water Flea
Sodium Chloride	Not listed	Pimephals prome: LC50: 7650 mg/L/96h	Not listed	EC50: 1000 mg/L/48h
Potassium chloride	EC50 2500 mg/L/72h	Lepomis macrochirus: LC50: 1060 mg/L/96h Pimephales promelas: LC50: 750 – 1020 mg/L/96h	Not listed	EC50: 825 mg/L/48h
Glycerol	Not listed	54,000 mg/L/96h	Not listed	Not listed

**Persistence and Degradability** Miscible with water. Persistence is unlikely based on information available.

**Bioaccumulation/Accumulation** No data available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

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## Section 13: Disposal considerations

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**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

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## Section 14: Transport Information

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**DOT (US)** Not dangerous goods  
**IMDG** Not dangerous goods  
**IATA** Not dangerous goods

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## Section 15: Regulatory Information

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**SARA 302 Components** Not applicable

**SARA 313 Components** Not applicable

**SARA 311/312 Hazard Categories** See Section 2 for more information

### CWA (Clean Water Act)

Component	CWA- Hazardous Substances	CWA-Reportable Quantities	CWA – Toxic Pollutants	CWA – Priority Pollutants
Sodium phosphate dibasic	X	5000 lb	-	-

**Clean Air Act** Not applicable

**OSHA – Occupational Safety and Health Administration** Not applicable

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA RQs	EHS
Sodium phosphate dibasic	5000 lb	-	

**California Proposition 65**

This product does not contain any Proposition 65 Chemicals.

**U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water	-	-	X	-	-
Sodium phosphate dibasic	X	X	X	-	-

**U.S. Department of Transportation**

Reportable Quantity (RQ)	Y
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations****Mexico – Grade**

No information available.

**Section 16: Other Information****Further information**

The above information is believed to be correct, but does not purport to be all inclusive and should only be used as a guide. The information provided in this document is based on our present knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Nanotein Technologies shall not be held liable for any damage resulting from the handling or from the contact with the above product.

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