Please refer to the following material safety data sheets for hazard and regulatory information specific to individual product components. This information can also be found on the Cell Signaling Technology, Inc. website cellsignal.com

<table>
<thead>
<tr>
<th>Product #</th>
<th>Product Name</th>
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<tbody>
<tr>
<td>9095</td>
<td>XTT Cell Viability Kit</td>
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</table>

<table>
<thead>
<tr>
<th>Component #</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>6905</td>
<td>XTT Reagent</td>
</tr>
<tr>
<td>9096</td>
<td>Electron Coupling Solution</td>
</tr>
</tbody>
</table>
1. PRODUCT AND COMPANY IDENTIFICATION

Product Name
XTT Reagent

Pure substance/preparation
Substance Preparation

Identified uses
For research use only, Not for use in humans.

Manufacturer
Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
TEL: 978-867-2300

2. HAZARDS IDENTIFICATION

OSHA Regulatory Status
No Known OSHA hazards. Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

Potential Health Effects

Acute Toxicity
- Eyes: May cause slight irritation.
- Skin: No known effect based on information supplied.
- Inhalation: No known effect based on information supplied.
- Ingestion: No known effect based on information supplied.

Chronic Effects
None known.

Aggravated Medical Conditions
None known.

Environmental hazard
See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>EC-No</th>
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</thead>
<tbody>
<tr>
<td>2,3-Bis(2-methoxy-4-nitro-5-sulfonyl)-2H-tetrazolium-5-carboxanilide inner salt</td>
<td>111072-31-2</td>
<td>0.1 - 1</td>
<td>-</td>
</tr>
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</table>

4. FIRST AID MEASURES

Eye contact
Rinse immediately with plenty of water and seek medical advice.

Skin contact
Rinse immediately with plenty of water and seek medical advice.

Inhalation
Move to fresh air.
5. FIRE-FIGHTING MEASURES

Flammable Properties
Not flammable.

Suitable Extinguishing Media
Dry chemical, CO, alcohol-resistant foam or water spray.

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
- Health Hazard 0
- Flammability 0
- Stability 0
- Physical and chemical hazards -

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid contact with skin, eyes and clothing.

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
No dangerous substances are released.

7. HANDLING AND STORAGE

Advice on safe handling
Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.

Technical measures/Storage conditions
Keep container tightly closed. Recommended storage temperature -20 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures
Showers, eyewash stations, and ventilation systems.

Hygiene measures
When using, do not eat, drink or smoke Wear suitable gloves and eye/face protection Wash hands before breaks and at the end of workday Wash hands with water as a precaution Regular cleaning of equipment, work area and clothing is recommended Avoid breathing vapors, mist or gas

Personal Protective Equipment

Respiratory protection
None required under normal usage. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Eye/ Face Protection
Safety glasses with side-shields

Skin and body protection
Protective gloves.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>liquid</td>
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<td>Appearance</td>
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<td>Color</td>
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<tr>
<td>Solubility</td>
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<td>Melting point/range</td>
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</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>No information available</td>
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<tr>
<td>Explosive properties</td>
<td>No information available</td>
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<tr>
<td>VOC Content</td>
<td>No information available</td>
</tr>
<tr>
<td>Initial Boiling Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
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<tr>
<td>Decomposition Temperature °C</td>
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10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>Stability</td>
<td>Stable under normal conditions.</td>
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<tr>
<td>Conditions to Avoid</td>
<td>No information available</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>No information available</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

No acute toxicity information is available for this product Caution - substance not yet tested completely

Carcinogenicity
There are no known carcinogenic chemicals in this product.

Target Organ Effects
None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity
The environmental impact of this product has not been fully investigated.

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility
No information available.
13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods
This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261).

14. TRANSPORT INFORMATION

DOT
Not regulated

MEX
Not regulated

IATA
Not regulated

15. REGULATORY INFORMATION

OSHA Regulatory Status
No Known OSHA hazards Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

International Inventories

TSCA -
DSL/NDSL -
EINECS/ELINCS -
ENCS -
IECSC -
KECL -
PICCS -
AICS -
NZIoC -

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories
Acute Health Hazard No
Chronic Health Hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.
CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

TSCA

U.S. State Regulations
California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations
This product does not contain any substances regulated by state right-to-know regulations.

International Regulations
Mexico - Grade
No information available.

Canada
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.
WHMIS Hazard Class
Not Determined

16. OTHER INFORMATION

Revision Date: 2011-08-10
Revision Note
No information available.

Disclaimer
The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.
1. PRODUCT AND COMPANY IDENTIFICATION

Product Name  Electron Coupling Solution
Pure substance/preparation  Substance Preparation
Identified uses  For research use only, Not for use in humans.

Manufacturer
Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
TEL: 978-867-2300

2. HAZARDS IDENTIFICATION

Emergency Overview
The product contains no substances which at their given concentration, are considered to be hazardous to health.

OSHA Regulatory Status
No Known OSHA hazards. Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

Potential Health Effects
Acute Toxicity
Eyes  May cause slight irritation.
Skin  No known effect based on information supplied.
Inhalation  No known effect based on information supplied.
Ingestion  No known effect based on information supplied.

Chronic Effects
Chronic toxicity  No known effect based on information supplied.

Aggravated Medical Conditions  None known.

Environmental hazard  See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>EC-No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenazine methosulfate</td>
<td>299-11-6</td>
<td>&lt;0.05</td>
<td>-</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact  Rinse immediately with plenty of water and seek medical advice.
Skin contact  Rinse immediately with plenty of water and seek medical advice.
Inhalation  Move to fresh air.
Ingestion  Never give anything by mouth to an unconscious person. Clean mouth with water.
5. FIRE-FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Properties</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Suitable Extinguishing Media</td>
<td>Dry chemical, CO, alcohol-resistant foam or water spray</td>
</tr>
<tr>
<td>Protective Equipment and Precautions for Firefighters</td>
<td>As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.</td>
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<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Stability</th>
<th>Physical and chemical hazards</th>
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<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions**: Avoid contact with skin, eyes and clothing.
- **Methods for Containment**: Prevent further leakage or spillage if safe to do so.
- **Methods for cleaning up**: No dangerous substances are released.

7. HANDLING AND STORAGE

- **Advice on safe handling**: Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.
- **Technical measures/Storage conditions**: Keep container tightly closed. Recommended storage temperature -20 °C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- **Exposure Guidelines**: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

- **Engineering Measures**: Showers, eyewash stations, and ventilation systems.

- **Hygiene measures**: When using, do not eat, drink or smoke. Wear suitable gloves and eye/face protection. Wash hands before breaks and at the end of workday. Wash hands with water as a precaution. Regular cleaning of equipment, work area and clothing is recommended. Avoid breathing vapors, mist or gas.

- **Personal Protective Equipment**
  - **Respiratory protection**: None required under normal usage. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
  - **Eye/Face Protection**: Safety glasses with side-shields
  - **Skin and body protection**: Protective gloves.
9. PHYSICAL AND CHEMICAL PROPERTIES

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<td>Appearance</td>
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<td>Solubility</td>
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</tr>
<tr>
<td>Decomposition Temperature °C</td>
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</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.
Conditions to Avoid: Exposure to light
Hazardous Decomposition Products: None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

No acute toxicity information is available for this product Caution - substance not yet tested completely

Carcinogenicity: There are no known carcinogenic chemicals in this product.
Target Organ Effects: None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity: The environmental impact of this product has not been fully investigated.
Persistence and degradability: No information available.
Bioaccumulation: No information available.
Mobility: No information available.
13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261).

14. TRANSPORT INFORMATION

DOT
Not regulated

MEX
Not regulated

IATA
Not regulated

15. REGULATORY INFORMATION

OSHA Regulatory Status
No Known OSHA hazards Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

International Inventories

TSCA -
DSL/NDSL -
EINECS/ELINCS -
ENCS -
IECSC -
KECL -
PICCS -
AICS -
NZIoC -

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Sudden Release of Pressure Hazard No
Reactive Hazard No

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International Regulations
Mexico - Grade
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Canada
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WHMIS Hazard Class
Not Determined

16. OTHER INFORMATION

Revision Date: 2011-08-09
Revision Note
No information available.

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